



THE AUSTRALIAN

garden journal

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Front Cover:

Kennedia retrorsa -

an endangered species in the wild,
but well established in cultivation.

Photographed in the National Botanic Gardens by R. Hotchkiss

Contents

Science - or Magic	page 87
Our Native Plants in Danger	page 88
Plants Wanted	page 91
The Tradescant Trust	page 91
A Quotable Quote	page 91
Australian Garden History Society	page 92
Heronswood, Dromana	page 93
An Austrian Gentleman Gardener in the Swan River Colony	page 94
A Dedicated Fancier of Old Roses	page 96
Scented Leaf Pelargoniums	page 97
Keeping Cottage Crafts Alive with Scented Leaved Pelargoniums	page 100
New Roses in the Old Tradition	page 101
Book Reviews	page 102
Some Books on Australian Botany and Gardening	page 103
The Anzac Story	page 104
Some Gladiolus Species	page 105
Liliums do grow from seed, But!	page 106
An International Garden Festival	page 106
Potting Mix Quality	page 108
Why should we trust our Soil?	page 108
Rapitest Soil Test Kits and Meters	page 109
Garden Cuttings	page 110
Nylex Multiflow Adaptor	page 112

Contributors to this Issue

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is a Senior Associate in the School of Botany, University of Melbourne. She retired as a Reader after teaching generations of students in different branches of botany. Her research interests are marine plants. In recent years she has written about the Australian history of botany and exploration. She has followed with interest the introduction of Australian plants into European gardens and the influence of this on the concept of "garden plants" in Australia.

Diana O'Brien

was born in Cheshire, UK, is married to an Australian and has lived in Canberra since 1958. She is a member and Past President of the Second Canberra Garden Club, and Past President of the Canberra Geranium and Fuchsia Society. She corresponds with growers of *Geraniaceae* around the world. She is currently a second year student at Weston Horticultural College, A.C.T. Her book, reviewed in this issue, won the first year students special project award.

Basil Hayler

is proprietor of Golden Ray Gardens, a specialist liliium nursery at Kallista, in Victoria. He is also President of the Australian Liliium Society.

Barney Hutton

is a keen plantsman and garden historian, who has carried out considerable research into early Victorian nurserymen. His garden on Mount Macedon, like many others, was badly damaged in the fires of February 1983.

Dorothy Downes

lived in Russia for four years, while her husband was seconded to the Australian Embassy in Moscow from the CSIRO. She travels extensively over eastern Europe.

Anne Latreille

is a free-lance journalist living in Melbourne. She is currently working on a book on Ellis Stones.

Betty Hudson

is a member of the Editorial Panel of the Australian Geranium Society, and co-author, with Jean Llewellyn and Gordon Morrison, of "Growing Geraniums and Pelargoniums in Australia and New Zealand".

Science — or Magic?

I have been taken to task by one or two readers for not publishing more articles on plants as opposed to gardens — one reader saying that his interests are in the former rather than in the latter.

A garden can, of course, be many things to many people. Edward Hyams, in his "An Englishman's Garden", says it can be one of three things, "a good growing unit, a setting for leisure or a play-piece, or a work of art". While the first may fulfil the needs of some, it seems to me that it falls far short of what a garden should be.

The other day I came across this, written by Henry Mitchell, who is gardening writer to the Washington Post — "it's important, isn't it, to think of a garden as a wonderful place to be, full of wonders (not necessarily rarities) and enchantments at all seasons. Some mischief has been done, probably, by calling the garden an outdoor living room, as if any living room in the world had such wonderful things in it as a garden has". But what really warms me to Mr Mitchell is this "And as for 'plant material', that is one of the supremely vulgar phrases of this language and I hope if anyone has been using it he will stop immediately. It is a barbarism. Plants are not material. The phrase is commonly used by people of careless habits, indifferent brains and, I suspect, no morals whatever. We do not want, therefore, 'plant material' in any 'outdoor living room', but we do want bushes, herbs, flowers, water plants, and so on, and where we have sense enough not to expect the impossible we have a right to expect the magical".

Strong stuff! I must say that I do deplore the pseudo-scientific jargon that seems to be infiltrating the world of gardening.

"Plant material" may be a valid term in a botanical context, for example when referring to the "material" contained in a herbarium, but it does not belong to gardening. There are those who cannot use the word "plant" without tacking on the second, usually unnecessary and meaningless noun; they go to a nursery to buy "plant material", they walk round their gardens, no doubt, admiring the "plant material" they find there. I wonder, do they refer to their dog and the cat as their "animal material"? And the abominations do not end here, for I read an article a short while ago, by whom I forget, in which the word "gardenist" was used. What sort of creature is that? While I have no wish to "knock" the ecologists — they are a well-meaning bunch and doubtless we should be paying more attention to what they say — they seem to me to be going too far when they tell us we should be planting only indigenous trees and shrubs; a garden is, or should be, a manipulation of Nature, not a facsimile, just as Art is reality manipulated, rather than copied.

It is, of course, the fundamental task of scientists to produce order out of the chaos that Nature has bestowed on us, notwithstanding the Second Law of Thermodynamics which I believe (not being a scientist let alone a thermodynamist (?)) says that order always tends to revert back to chaos.

Too much order, too much science, and the magic disappears. Those who would have "a good growing unit" may fill it brim full with "plant material" but let them not call it a garden, nor themselves gardeners. Let those who want "outdoor living rooms" have them by all means, but they may be poor imitations of gardens. I come down heavily on the side of Art, but, according to your preferences, your garden may be a Poussin, a Monet or a Constable — the possibilities are infinite, as Art itself is infinite. The living plants are a major component, but not the only component, in this work of art. The American garden designer, James Rose, summed it up like this "A garden is not flowers, or plants of any kind, it is not flagstones, bricks, grass or pebbles; a garden is an experience, it is the sense of being within something while out of doors".

To end on a lighter note, I am obliged to that ubiquitous writer, Anon, for the following —

"What is a garden,
Goodness knows.
You've got a garden,
I suppose?
To some it is a piece of ground
For which some gravel must be found:
To some those seeds which must be sown:
To some a lawn that must be mown:
To some — a ton of rocks;
To some it means a window box:
To some, who dare not pick a flower,
A man, at twelve and six an hour:
To some it is a silly jest
About the latest garden pest:
To some, a haven where they find
Forgetfulness, and peace of mind."
I'm opting for forgetfulness, and all that goes with it!

TIM NORTH

Professor Stearn's Lecture

Professor Stearn's lecture, first given to the Annual Conference of the A.G.H.S. in Adelaide last November, on: "The Introduction of Plants into the Gardens of Western Europe during 2000 years" has been published as a special supplement to this issue of **The Australian Garden Journal** and distributed to all those subscribers who ordered copies.

A limited number of copies remain, for distribution to those who have subscribed during the last month, or who for any other reason did not complete the order form that was enclosed with the last issue. The cost is \$2.30, which includes postage.

An order form for this supplement will be found on the back page of this issue; to avoid possible disappointment please return this, together with the appropriate remittance, as soon as possible.

To quote Professor Stearn's own words, this paper "provides a survey nowhere available in English, with information nowhere else assembled, so far as I know". Of particular interest to many will be the section on the introduction of Australian plants into Europe during the period 1772 to 1820.

Professor Stearn is one of the world's foremost authorities on the history of cultivated plants, and this paper, published exclusively by **The Australian Garden Journal** represents an important contribution to our botanical and horticultural literature.

Our Native Plants in Danger

by Tim North

The richness, diversity and uniqueness of our native flora is well known. About 28,000 species have been recorded so far, and many thousands more are still waiting to be named and described.

Of this huge number, something like 85% are found nowhere else in the world, so if they are lost to Australia they are lost to the world.

Unfortunately, our record in conserving our native flora to date is far from impressive. In less than 200 years, since Banks and Solander first set foot on the shores of Botany Bay, 76 Australian species are presumed to have become extinct and 203 more are on the endangered list: 10% of all our native plants are considered to be at some risk. For example, one species, *Hakea pulvinifera*, is believed to have finally died out because someone thoughtlessly, or in ignorance, constructed a parking lot on the site of the last remaining plants. The Wongan Trigger Plant, *Stylidium coroniforme*, is so rare that only two plants are known still to exist. Other species are reduced to fewer numbers than we can count on our fingers.

Why, some may ask, is this a matter of such great concern? Of what consequence is it that the Queensland Squirting Cucumber and the Dorrigo Daisy Bush is no more?

Apart from purely aesthetic reasons — every plant that becomes extinct is a permanent loss — there are other more tangible, and doubtless more important, factors. Some plants that have been lost may have had practical benefits to mankind if only we had a chance to find out. In the late 1940s the Australian Phytochemical Survey, undertaken by CSIRO and certain Universities, screened more than 4000 species of native plants for physiologically active compounds; this survey identified more than 400 new compounds and no less than 600 that were already known elsewhere. Some of these species are now being grown as major sources of drugs; for example *Duboisia* species supply hyoscyamine and hyoscyne which are used in ophthalmology, *Tylophora* species contain compounds with potential in the treatment of cancer.

Recent advances in genetic engineering have made it possible to manipulate and develop the desirable qualities of many plants through the introduction of wild genes. To quote Linda Fellows, one of a team of biochemists at the Jodrell Laboratory, Royal Botanic Gardens, Kew, "Plant chemicals which can exert beneficial effects on human physiology have long been exploited by man as drugs. But perhaps of greatest value in future will be those substances affecting man minimally or not at all, yet able to combat the insects, fungi, rodents and birds that threaten his food supplies. All wild plants are potential sources of such chemicals, not only those species already regarded as "economic". For 10,000 years or so man has nurtured his crop plants and deliberately selected those strains yielding high levels of food chemicals, such as starch and oil, at the expense of their natural defensive chemicals. Few of the crop strains of to-day would survive in competition with their wild relatives. Dependant on man's protection for their very existence they are an anomaly of nature".

The belief that we could synthesize all the crop protection materials we needed from coal and oil evaporated when the ecological havoc wrought by these unnatural chemicals became apparent. Now we are turning more and more to living plants in our desperate search for crop protection agents. The chemistry of wild plants

may provide the key to our survival. For example, in 1977 lucerne, or alfalfa (*Medicago sativa*), a plant important to the pasture industries, was attacked by an aphid new to this country. This aphid, however, had already appeared in the United States, where varieties of lucerne resistant to it had been bred. By using lucerne varieties from Australia and from the U.S., plant breeders were able to combine useful characteristics in the first with the resistance that was already present in the second to produce new strains. Recently, five important potato cultivars have had blight resistance bred into them through *Solanum demissum*, and other South American *Solanum* species are being used to breed virus resistant strains of potato.

Every wild species, therefore, has to be regarded as potentially valuable, and there is an urgent need to conserve all our native plants, so that they can be adequately studied in terms of their possible benefit or as a source of valuable genetic material.

While our native animals have for a long time evoked a sense of national identification, it is only quite recently that we have learned to recognize our vast heritage of plants. Some 2500 or more native species are now grown in gardens or in man-made landscapes. The Society for Growing Australian Plants has a large and active membership, and the Australian Flora Foundation was established in 1981 "to foster research into the biology and cultivation of the Australian flora", which includes the selection of superior forms and hybridization. And now 1984 sees the launching of a major initiative in the conservation of our flora.

On 22nd March World Wildlife Australia joined with other national organizations of World Wildlife in the launch of the 1984 International Plants Campaign. This campaign aims at increasing community awareness of the need for conservation of our plant resources, in particular the endangered species, and raising funds for conservation projects directed to the survival of endangered plant species both within Australia and throughout the world. The Greening Australia movement, which in turn has the backing of the nursery industry, will co-operate with World Wildlife Australia in this campaign.

In further support of the campaign an important new book has just been published, based on research that was funded by World Wildlife Australia. This is "**Extinct and Endangered Plants of Australia**"; its joint authors are Dr John Leigh, of the CSIRO Division of Plant Industry, Dr Robert Boden, Director of the National Botanic Gardens, Canberra, and John Briggs, also of the CSIRO Division of Plant Industry.

This book presents detailed case histories of each of the species presumed extinct or considered endangered, describing their habitats, distribution, threats, and where appropriate recommendations on the action needed to protect them from further decline. The authors point out that the distance between where a resource is grown or obtained and where it is used is sometimes so great that people do not realise the impact of that resource's consumption. For example we seldom see our food needs as the cause of laying bare the bush somewhere to grow grain or graze cattle. They identify grazing and agriculture as the most widespread and continuing threat to Australian plants. 75% of the species presumed extinct and 85% of the endangered ones are believed to have been adversely affected by agriculture or grazing.

Other instruments of extinction include forestry, roadworks, mining and quarrying, horticultural collecting, fire, competition from introduced plants or animals, and urbanization and industrial development.

Forestry.

In 1917 the first Conservator for Forests in Western Australia said that "forests were looked upon as irritating excrescences on the face of the earth, to be sawn up, ring-barked or otherwise destroyed". The upshot of this attitude has been the extinction of one species and the endangering of 14 more. Plantation forestry is the most powerful threat, as it involves replacing the natural vegetation with a monoculture, usually radiata pine. Where the removal of logs for milling is followed by large scale harvesting and chipping of the remaining trees, the surviving or regenerated plants inevitably give rise to a flora distinctly different from the original; inadequate account is often taken of the understory vegetation, including rare and endangered species.

Roadworks.

Although trees may sometimes be left on road verges, the understory is frequently damaged by repeated burning, mowing and stock grazing. Roadworks are currently a threat to 50 or more species.

Mining and Quarrying.

Although these activities drastically and often irreversibly alter the immediate vicinity, the area is still relatively small. Only one species is thought to have become extinct through mining, and 19 are threatened.

Horticultural collecting.

Orchids and insectivorous plants attract special attention. Although no Australian species is believed to have become extinct at the hands of over-zealous collectors, 13 species — 9 of them orchids — have become endangered.

Fire.

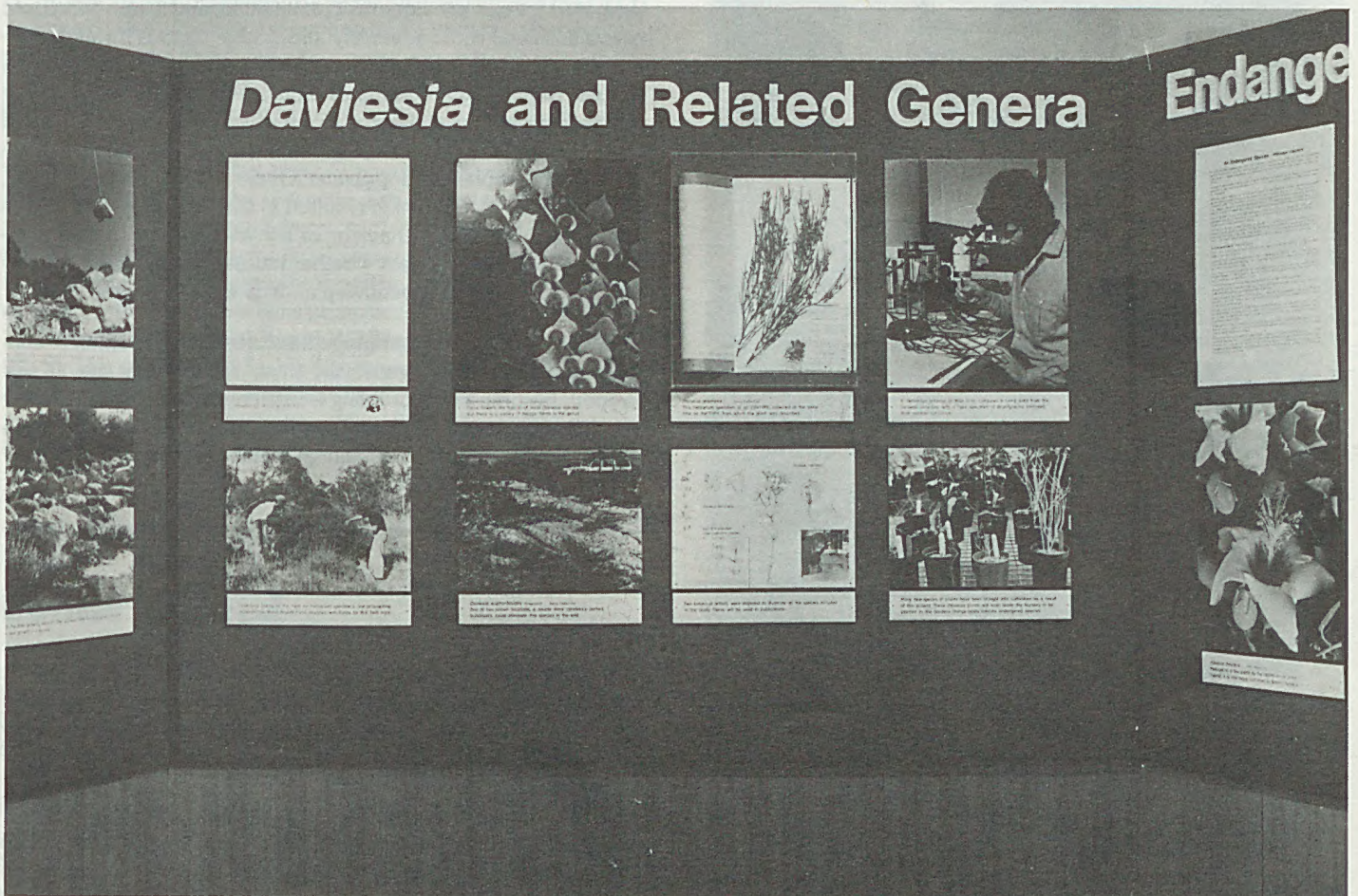
Some plants depend upon regularly recurring fires for their survival; four species are considered endangered through lack of fire. Others, on the other hand, are at risk from too frequent fires, either accidental or deliberate. Controlled burning techniques suited to the management of commercial forests may not suit the understory, and should not, say the authors of this book, be used automatically in conservation areas.

Competition.

Some introduced species have escaped from cultivation and compete with native plants. These include lantana, gorse, privet, and prickly pear, all of which have taken hold in relatively undisturbed bushland. More than 50 species could be considered endangered by this threat, while two have become extinct. Introduced animals, rabbits in particular, have had an impact on native plants. For example, *Hibiscus insularis*, an attractive plant native to Philip Island, near Norfolk Island, has been reduced to eight individuals as a result of the introduction on to the island, in the 1880s, of goats and rabbits.

Urbanization.

Urban development has a profound impact on our flora, but often merely follows in the wake of primary industries that originally cleared the land. However, provision of ports to service secondary industries has destroyed many areas of coastal heath and swampland that might otherwise have had a chance of surviving. Seven species are believed to have become extinct through urbanization and industrial development, and more than 20 are endangered.



DAVIESIA IS AN IMPORTANT GENUS OF PEA FLOWERS. IT WAS STUDIED AS PROJECT 13 BY DR. MICHAEL CRISP OF THE NATIONAL BOTANIC GARDENS. (photo: R. Hotchkiss)

Our Native Plants in Danger (contd)

Herbicides.

Herbicides used to destroy "unwanted" vegetation may affect species other than the target ones. For example *Daviesia euphorbioides* is endangered through herbicide treatment of road verges. Or the plant itself may be the target for herbicide treatment: in the south-west of Western Australia a *Gastrolobium* species, which is poisonous to stock, is systematically eradicated before any area can be grazed. Seven species are now classified as endangered because of spraying.

How can they be saved?

The co-authors of this book see no simple panacea, but suggest a series of co-ordinated strategies, based on National Parks and reserves, Botanic Gardens, the cultivation of endangered species, legislation, research, and public education.

Although many parks and reserves have been set up since the Royal National Park was established south of Sydney in 1879, only 45 of the 203 endangered species are known to occur in them. The remainder are on private land, road verges, unreserved Crown land, and managed forests.



Long-term storage of endangered species seed can be achieved by sealing seeds in aluminium packs and storing at low temperatures. Photographed in the National Botanic Gardens seed store by R. Hotchkiss.

Botanic Gardens can propagate and multiply threatened plants so that individuals can be re-introduced into their former habitats or passed to the horticultural trade. They can establish seed banks, and perform censuses to establish which species are in greatest need of conservation. The National Botanic Gardens in Canberra is making a special study of the biology and horticulture of rare and threatened species, and is also undertaking the propagation and re-introduction of some species. Research at the Gardens, for example, on the purple double-tailed donkey orchid (*Diuris punctata* var. *albo-violacea*) has involved isolating and culturing, under laboratory conditions, the mycorrhizal fungi from the roots of wild plants, and inoculating seeds under sterile conditions. In 1981 the Gardens had more of these plants under cultivation than were known in the wild. Other Botanic Gardens are caring for rare species, and at present 65 of the 203 endangered species are in custody.

The authors point out, however, that preservation in cultivation may not always be a simple operation, and is more likely to be successful with some species than with others. Annuals and short-lived perennials obviously pose special problems. Although endangered species are not necessarily difficult to propagate some, in particular terrestrial orchids, need special techniques.

In addition to costly and consistent maintenance there are major genetic considerations, and care is needed to prevent hybridization.

Care, too, needs to be taken in their re-introduction. Some endangered species are vigorous in cultivation, and if introduced into native bushland could adversely affect other species through competition or possibly hybridization with naturally occurring native species. Replanting programmes should involve examination of the genetic composition of the stock from which plants are propagated to ensure, as far as possible, the retention of adequate genetic diversity in the replanted population. Obviously there is a need, too, to remove the threat which resulted in the depletion, and knowledge of the breeding behaviour of the endangered species is required to be able to assess whether natural reproduction is likely to occur, or whether repetitive plantings will be needed.

Whatever the means employed, the need to take action to conserve our native flora, especially those species that are at risk already, become more pressing every day. Every one of us now has the opportunity of supporting that action by contributing to World Wildlife Fund's International Plants Campaign.

References.

Extinct and Endangered Plants of Australia, by J. Leigh, R. Boden and J. Briggs: introduction by HRH The Duke of Edinburgh. (Macmillan Australia). Available from World Wildlife Fund Australia, GPO Box 528 Sydney 2001, for \$49.95, including postage and packing.

CSIRO Ecos No 37, Spring 1983, pp 21-26.

WWF Australia publications: Newsletter No 18 (Jan-March 1984); International Plants Campaign Educational Supplement: Fact Sheets.

300 million years of plant chemistry — a heritage in danger, by Linda Fellows (published by WWF and IUCN).

Our Native Plants in Danger (contd)

World Wildlife Fund

is an international conservation foundation, based in Switzerland, and with 24 affiliates throughout the world. Its scope is the conservation of nature and the natural environment in all its forms — fauna, flora, landscapes, soils, water, air and other natural resources. It collaborates closely with the International Union for Conservation of Nature and Natural Resources (IUCN) to ensure its programme has a sound scientific basis.

Some of World Wildlife Fund Australia's Plant Projects

Project 44 — National Rainforest Study (\$26,525)

Project 45 — Propagation of threatened Australian plants in Victorian Reserves (\$25,190)

Project 59 — Plants Campaign (\$20,000) — a public awareness campaign

Project 60 — Conservation of rare Banksias in Western Australia (\$20,376)

Project 63 — Network of Conservation Reserves in Western Queensland (\$34,200)

Project 65 — Conservation biology of the endangered plant species *Hibiscus insularis* (\$4,110)

Project 66 — Conservation of the Huon Pine (Stage II) and King Billy Pine (\$24,007)

Project 69 — Introduction of Australian endangered plants into cultivation (\$28,366)

Project 71 — Conservation status of the Swamp Stringybark (\$10,350)

Project 73 — Conservation of some Victorian orchids (\$47,717)

Project 74 — Extinct and endangered Australian plants — audio-visual programme (\$5,250)

Project 75 — Conservation of endangered species of Eucalypts in Tasmania (\$16,915)

The total cost of the 1984 Conservation Programme is estimated at \$281,006. To become a Supporter of World Wildlife Fund Australia costs \$15.00 for one year, \$28 for two years, or \$42 for three years. To become a Life Supporter costs \$500. Supporters receive an annual Conservation Programme brochure, quarterly newsletters and a certificate of support; in addition Life Supporters receive invitations to functions organized by WWF Australia.

The postal address of World Wildlife Fund Australia is Level 17, St. Martin's Tower, 31 Market Street, Sydney 2000 or GPO Box 528 Sydney 2001, telephone (02) 29.7572.

Donations and subscriptions to WWF Australia are tax deductible.

Plants Wanted

Mr Michael Puckey, c/- Post Office, Nimbin, NSW 2480, wants to expand his collection of *Zingiberaceae*. Would any reader who has any plants of this family to spare kindly get in touch with Mr Puckey?

Mr Tim North, PO Box 588, Bowral, NSW 2576, is seeking the following;

Viburnum x bodnantense, *V. x juddii*, *V. plicatum tomentosum* "Lanarth", *V. plicatum* "Mariesii", *V. plicatum* "Pink Beauty".

Clematis armandii

Hydrangea arborescens, *H. sargentiana*, *H. serrata* "Preziosa".

Magnolia sieboldii, *M. wilsonii*.

The Tradescant Trust and the Church of St. Mary-at-Lambeth

In our October 1983 issue we published a short article on the work of the Tradescant Trust in restoring the derelict church of St. Mary-at-Lambeth, in south-east London, the site of the tomb of the two Tradescants, and also that of Admiral Bligh.

The first public appeal was launched in February 1978, and the second stage of the appeal in February this year. It is hoped that this will result in an early start being made on the adaptation of the church into the Museum of Garden History.

A quarter of a million pounds is needed to complete the restoration and set up the Museum. Membership of the Friends of the Tradescant Trust, the fund-raising body, now costs two pounds and fifty pence for those living outside the UK, and subscriptions may be sent to the Hon. Membership Secretary, 7 The Little Boltons, London SW10 9LJ, England.

A biography of the two John Tradescants, by Prudence Leith-Ross, has just been published by Peter Owen Ltd, London. This includes, in a section of Appendices, the complete texts of the Tradescants' own plant lists of 1629-33, 1634 and 1656, as well as the *Musaeum Tradescantianum*, the younger Tradescant's catalogue of his museum collection. Each plant in the lists is identified with its modern botanical name, making this an important work for all those interested in the history of gardening.

A Quotable Quote

"In the 1930s Auberon Herbert designed his park at Pixton in Somerset in the shape of the Union Jack, a flag whose basically abstract conformation would prevent you seeing this on the ground. The explanation lies in the fact that a neighbour, Otto Gardiner, was a member of the 'Cliveden Set'. Assuming that aerial war was approaching, Mr Gardiner ordered the woods of his exquisite eighteenth century deer park be cut into the shape of a swastika, in the hope that the Luftwaffe, in the course of its intensive bombardment of North Somerset, would be deflected from his estate to that of his more patriotic neighbour. Apparently he was under the impression that aerial bombardment in World War Two would again be by Zeppelin, that is to say the bombs would be simply hung from the airship on pieces of string, which at the crucial moment the crew would cut with a pair of scissors, bearing in mind only Kaiser Wilhelm's instructions — that 'museums and royal palaces were to be spared'."

(From "Great Country House Disasters", by Hugh Vickers and Caroline McCullough).

The Chinese Garden

Unfortunately two photograph captions in John Patrick's article in our February issue became transposed — or more correctly the photographs became transposed. The caption at the foot of page 61 belonged to the photograph at the top of page 62, and vice versa. We apologize for the error.

THE AUSTRALIAN GARDEN HISTORY SOCIETY

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Membership Secretary and Treasurer:

Mr Chris Betteridge, 3 Pine Street, Randwick, N.S.W. 2031.

All correspondence should be addressed to the Secretary.

Historic Gardens in Australia: Guidelines for the Preparation of Conservation Plans

This booklet, published by the Society, is available from National Trust Bookshops for \$4.50, or from the Secretary, P.O. Box 300, Edgecliff, N.S.W. 2027, for \$5.00 including postage.

Bookshops, Societies and other organizations and institutions requiring bulk supplies at wholesale rates, may apply to the Secretary.

This booklet sets out the priorities to be followed when preparing a conservation plan, and covers such matters as research, assessing the heritage significance, constraints, plans and maintenance. Although designed primarily for owners and managers of historic gardens the general principles will prove useful to all those who may wish to recreate a traditional garden.

State News

New South Wales and the A.C.T.

Two meetings, one in Sydney and one in Canberra, were held during March, for the purpose of electing local committees and formulating programmes of activities for the remainder of this year. As a result of these meetings two regional branches of the Society have been formed, one to be known as the Sydney Metropolitan and Northern New South Wales Branch, with a Committee under the chairmanship of Mrs Joyce Beaumont, the other to be known as the A.C.T. and Southern New South Wales Branch, with a Committee under the chairmanship of Mr Richard Ratcliffe. Details of activities to be arranged by these two branches will be published in the next issue of the Journal.

A "Day of Enjoyment" in the gardens of the Hawkesbury region will be held on Sunday 15th April, commencing at 10.00 am

and finishing about 4.00 pm. Properties to be visited include Hobartville at Richmond, built in 1828, Watervale near Richmond, which houses a unique collection of old farm implements and local artifacts, Mahu Meru and The Coach House, both at Kurrajong Heights, and Ray's Orchard, a fifty-year old prize winning garden at Bilpin. Details are available from Mrs Keva North, PO Box 588 Bowral, NSW 2576, tel. (048) 61.1884.

Tasmania

The Tasmanian branch held a children's plant activity picnic at the Royal Tasmanian Botanical Gardens in February. The following is an account by one of our younger members:

Family Day at the Royal Tasmanian Botanical Gardens

On Friday 3rd February about 20 children, mothers and grandparents spent an enjoyable day at the Royal Tasmanian Botanical Gardens. Mr Gray took us on a history walk through the Gardens. We visited the lily pond and found out that it was once used as a storage reservoir for watering the Gardens, but the reservoir did not hold enough for the whole Gardens so water actually had to be carted from Hobart to the Gardens by bullock. This was a great expense for the Gardens. This reservoir or lily pond, as it is now, has ducks and islands in it as well as lilies.

We also went to the Herb Garden. It is one of the newer parts of the Gardens, but contains lots of very old plants.

In ancient times, when people were ill, the mother of the house made up medicines to suit the illness the person had. Motherwort was used by the early Greeks to treat the mothers before they had a child. Soapwort has this name because the boiled leaves and roots of this herb were used to make soap. And lastly Mouse-ear-hawkweed, or Mouse Bloodwort was used in ancient Greece as the soap made from this plant improved the hawks' eyesight and made them better hunting birds. The mouse-ear part of the name was used because the leaves are shaped like a mouse's ears.

Later we went to the Museum and saw a display about the famous Tasmanian botanists and their work.

It was a very enjoyable and interesting day, ending with a picnic lunch and Mr Gray showing us how to pot plants. (Mary Cripps, age 12).

An Invitation to join the Australian Garden History Society

If you subscribe to The Australian Garden Journal but are not a member of the Australian Garden History Society, why not join now? It will only cost you a few extra dollars.

And if you join **this month** (April) not only will you get the benefit of fifteen months' membership (to 30th June 1985) but you will pay at the 1983-84 subscription rate, and so forestall any possible increase in the subscription rates that may have to apply for the coming year.

If your journal subscription is due for renewal, you will find enclosed with this journal an application form for membership of the Society; fill this in and return it, with your remittance, and this will bring you all the benefits of membership, including another seven issues of the Journal.

On the other hand, if you wish to renew your Journal subscription only, and do not want to join the A.G.H.S., you should complete the **yellow** renewal form **only**.

Correspondence

Dear Howard,

I would like to draw the Society's attention to the fact that "Seppeltsfield", the winery estate of the Seppelt family in the Barossa Valley, remains unrecorded — at least as far as I can ascertain from officers of the Seppelt company and other sources in South Australia.

In my view Seppeltsfield is an important estate showing considerable interest in garden landscape by the successive generations of the Seppelt family. It is unique in being one of Australia's only "feudal" estates. Mr Karl Seppelt, now approaching retiring age, is the last of the family directly in charge of the Company and the estate. With rapid changes of ownership of wine interests in Australia it is timely that the nature and details of the gardens and planting be put on record. I understand that there is considerable archival material at Seppeltsfield, I am hopeful that the Society can initiate a study of Seppeltsfield — perhaps by assisting a higher degree candidate or garden historian located in South Australia.

I am told that enquiries about Seppeltsfield should be directed to a Mr Graham H. John.

Yours sincerely,

Ken Digby.

(Note: this letter was written before the current "take-over" moves on the Seppelt family business, which doubtless make its contents even more cogent: T.N.)

Dear Keva and Tim,

I received my copy of The Australian Garden Journal yesterday and once again enjoyed it very much. I also read with interest the letters and comments re A.G.H.S. Whilst I am tempted to join the Society, a few matters mentioned make me hesitate.

I don't like the words "history" and "historic" if in fact they do mean that the Society is only going to be interested in gardens established before a certain date.

Mr Garnett feels the Society should stand for an approach "almost entirely absent from the commercial world of horticulture". He later mentions the potting up of seedlings of rarer conifers for distribution elsewhere. I would think that some parts of the nursery industry in particular could be very helpful in the supply and propagation of rarer plants. Does Mr Garnett think that the entire commercial world of horticulture is incapable of any pure thoughts on plants and gardens? Is the Society prepared to alienate the many commercially employed professionals and the knowledge and expertise they may have to offer?

Who is going to be the arbiter of "good taste and good design"?

These are just a few of the points raised that have concerned me.

Yours sincerely,

Jill Gaibor,

Gaibor's Nursery, Great Western Highway, Wentworth Falls, NSW.

Dear Tim,

I was most interested in the correspondence about the Society's name.

The letters from T.R. Garnett and John Patrick show deep and intelligent thinking on the subject, but I cannot help thinking that this whole argument may have taken place when the Society was first christened.

Surely the present name meets all the conditions required by your correspondents.

In my Oxford Dictionary (Concise Edition) the prime definition of "History" is "continuous methodical record of important public events; study of past events".

Had the word "Historical" been used there might have been reason to change, as the Concise Oxford defines it as "belonging to the past, not of the present".

Were I a member of the A.G.H.S. I would consider its name to have been chosen with considerable care.

Yours,

M.S. Bell,

Edgecliff, NSW.

Héronswood, Dromana

Clive and Penny Blazey operate a mail order business and garden club, Diggers Plants and Diggers Club, specialising in what they describe as "rarish" plants.

Last year they moved their centre of operations to "Héronswood", a 120 year old property at Dromana, in Victoria, with commanding views of Port Phillip, the Heads, the City of Melbourne, the Mornington coastline, and to the east the Kangerongs.

The garden of three and a half acres, which retains many of the original plantings, is at present being developed for the purpose of establishing the plants they offer for sale, mainly herbaceous perennials, in a fine garden setting. Besides herbaceous plants over two hundred trees and shrubs have been either planted or moved.

Mr and Mrs Blazey extend an invitation to all members of the Australian Garden History Society to visit the gardens (normally open only to club members) at a pre-arranged time. The address is 105 Latrobe Parade, Dromana, Vic. 3936, and the telephone number (059) 87.1519. Diggers Autumn 1984 catalogue is available from the same address.



HERONSWOOD, DROMANA (right)

An Austrian Gentleman Gardener in the Swan River Colony

by Sophie C. Ducker.

Descriptions by British and French travellers to New Holland during the first hundred years of white settlement are common. They are of great interest because they tell us much of country, settlers, flora and fauna.

One of the earliest German travellers to come to Australia was Karl Alexander von Hügel (1794-1870), an Austrian Baron, a nobleman of German birth. Hügel studied law and as a career soldier fought in the Austrian campaigns against Napoleon and later in Italy. In 1824 he left the army to develop his beautiful estate at Heitzing, close to Schönbrunn near Vienna, and to devote his time and considerable means to the natural sciences, particularly horticulture. He had connections with all famous botanists of his day and was respected by them. An unhappy love affair, a broken off engagement, made it necessary for him to leave Austria for some years, and it was through the intercession of the Habsburg Emperor Franz I that Hügel was accepted by the Admiralty in London as a guest scientist on a British warship.

Hügel joined the frigate *Alligator* under the command of Captain Lambert, and over the period 1833 to 1837 visited the Swan River Colony, Hobart Town, New South Wales, Norfolk Island and New Zealand. During these years he wrote a massive diary. This diary, written in German gothic script, was purchased fifty years ago by the Mitchell Library, which is part of the State Library of New South Wales. I have started to translate this diary into English and so far have only dealt with the Swan River Colony. I find it fascinating to read Hügel's account of land, people, personalities and customs in this young colony — at the time of his visit the settlement was only four years old. It is particularly interesting to read the observations made by a continental mid-European, differing somewhat from those of British emigrants. But the most rewarding aspect of the diary for me is the knowledge that one is looking through the eyes of an early nineteenth century horticulturist visiting and viewing the park or bushlike landscapes in Western Australia.

Baron von Hügel in the company of Mr John Septimus Roe, the surveyor of the Swan River Colony sailed up the Swan River as far as Guildford of to-day. (As a matter of fact they made the same boat cruise up the Swan River that was carried out by Charles Fraser, the Colonial Botanist of New South Wales, with Captain Stirling in 1827, which is reprinted in Seddon, 1972). Baron von Hügel observed and collected plants during the entire boat trip and also spent several weeks describing and drawing plants and making a herbarium. It is amazing to read how many plants Hügel recognized in the field. Many were known to him because he grew them in his own garden, or had seen them in other people's gardens. He greets like old friends representatives of the genera *Dryandra*, *Banksia*, *Anigozanthos*, *Isopogon*, *Melaleuca* and *Kennedy*. Hügel also recognizes the different species of *Acacia* and *Leptospermum*.

I never cease to be amazed that only fifty odd years had passed since the first botanists had roamed Australia, and by then dozens of plants from this far away continent were well distributed and recognized garden plants in the British Isles and in Europe. This

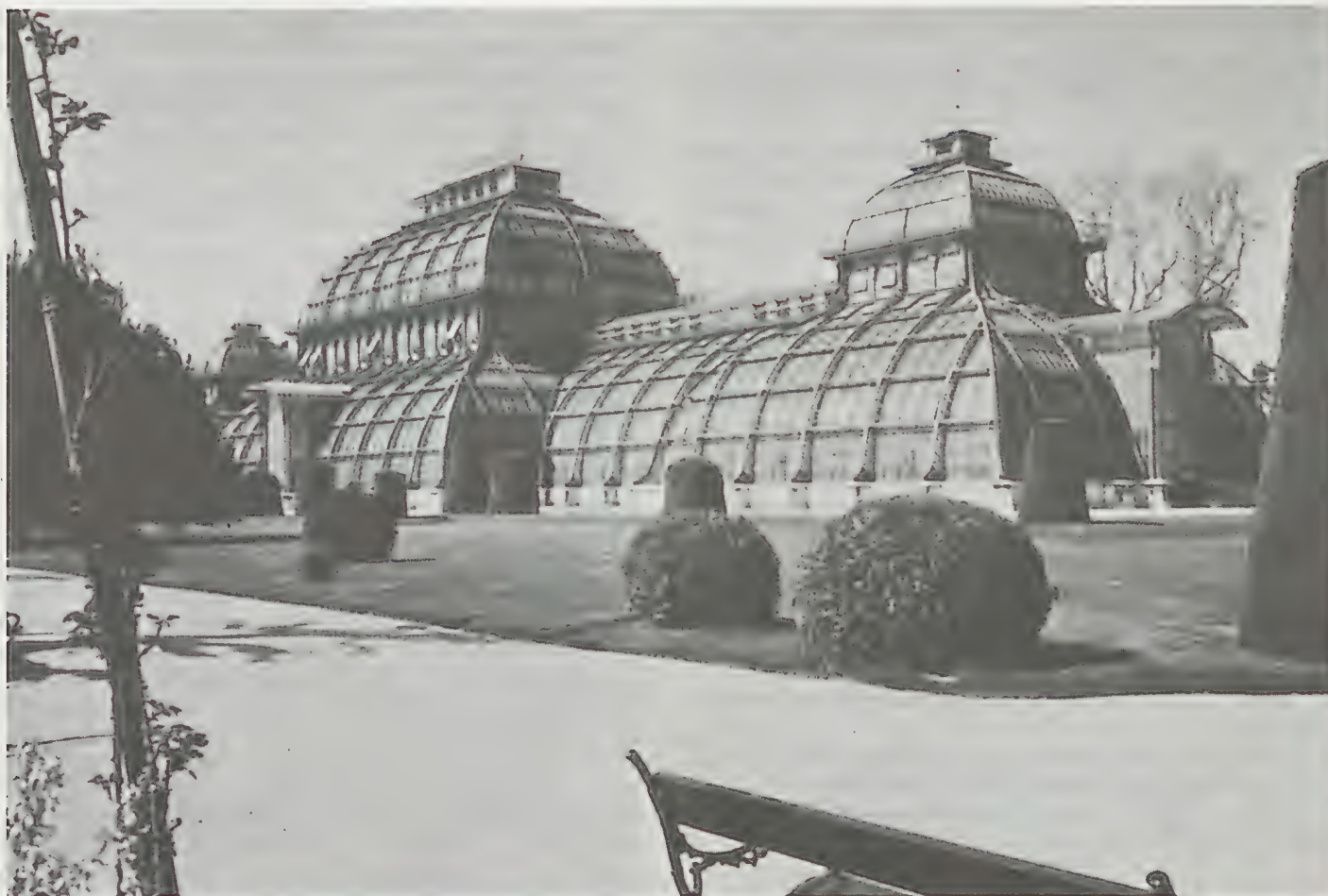
was due to the widespread craze for possessing beautiful gardens with exotic plants from foreign and distant lands, particularly at the courts of reigning monarchs.

In London there were Kew Gardens, enriched by Joseph Banks and his collectors (Blunt, 1978). In Paris there were the famous gardens at Malmaison owned by the Empress Josephine, the garden of J.M. Cels and the Jardin de Roi. In Vienna the Habsburgs at Schönbrunn and Hügel at Heitzing used glasshouses and gardens to display plants from New Holland to their best advantage. Kew Gardens, for instance, listed 53 Australian species of *Acacia* in 1813 (Aiton, 1813) and the Berlin Botanic Gardens named 25 flowering acacias from New Holland in 1822 (Link, 1822). These shrubs or trees overwintered in tubs in the huge glasshouses which were built at those times in all the gardens, and during the summer months they were displayed in the open.

But Australian annual plants were also grown in these displays, from seed collected in Australia. Hügel recognized *Helichrysum* in different colours, as he knew them from his own gardens. But he was especially pleased to see the "friendly blue face of *Huegelia*" greeting him. Hügel was sufficiently well known and respected by botanists of his time for them to have already used his name for three distinct genera of plants. Robert Brown suggested *Huegelia*, which the Viennese Professor Endlicher gave to an Australian member of the *Rutaceae*. *Huegelia*, named by George Bentham in London, describes an American genus. Of importance to us is only the *Huegelia* given by Reichenbach at the time to the Blue Rottneist Island Daisy — which is not a daisy at all but a lace-plant, and now known as *Trachymene caerulea*. Hügel was delighted to find his namesake *Huegelia* stretching the familiar blue flowers towards



Monument of Baron Von Hügel: 'The celebrated promoter of horticulture in Austria, erected by the society of gardeners and garden lovers'.



GREENHOUSE IN THE SCHONBRUNN GARDENS, BUILT IN THE SECOND HALF OF THE NINETEENTH CENTURY TO HOUSE AND DISPLAY PLANTS FOR THE IMPERIAL HOUSEHOLD OF THE HABSBURGS.

him while rooted in the sand. None of the *Huegelia* genera any longer bear his name because of the botanical laws of priority — the earliest name must be used, rather than the one which is best known or most descriptive. But after Hügel's visit to the Swan River Colony and other parts of Australia and the return to Europe of his herbarium and seeds, publications on his collections were written, particularly by Stephan Endlicher (1837, 1838), Professor of Botany and Director of the Botanic Gardens in Vienna. Many species of Australian plants bear Hügel's name and will be known to Australian gardeners, like the beautiful blue Hibiscus, now *Alopyne huegelii*, and species of *Verticordia*, *Casuarina* and *Caladenia*. Some names of our Australian plants were given by Hügel to honour his friends and relations. *Hardenbergia* commemorates his sister, who married the Duke Anton von Hardenberg. *Macarthuria* was given in memory of his hosts in Sydney, James and William Macarthur (Hügel, 1837).

Baron von Hügel returned to Vienna in 1837, later living in Florence and Brussels. Wherever he went he fostered beautiful gardens, including in the landscapes wherever possible some Australian plants, for which he was well known. He made many introductions of Australian plants into European gardens and displayed them in horticultural shows and exhibitions. In 1827 he founded, together with Joseph von Jacquin, the Austrian Horticultural Society in Vienna which issued after his return from Australasia two numbers of the **Botanische Archiv** with Australian plants illustrated by Hügel himself.

In the **Gardening Journal** published in Berlin in August 1841 is an article which deals with the garden displays of Baron von Hügel (Peinter, 1841). It tells of the magnificent collections of foreign and rare plants assembled by the Baron and housed in his garden or greenhouses. The writer describes in particular the plants massed on a large terrace next to Hügel's study. Here in summer trees and shrubs were beautifully grown in pots and tubs, and many were in flower. Among them were Australian representatives like *Podocarpus*, *Correa*, eight species of *Acacia*, *Indigofera australis*, several *Banksia* species, an 18 feet high *Grevillea robusta*, and species of *Oxylobium* and *Gompholobium*, while different species of *Kennedy* climb on a trellis. The growth of Australian and some tropical plants was made possible by a new invention used for the first time in the greenhouses of the Baron von Hügel — the warm water or steam heating. This had been installed in 1837 after the Baron's return from the southern hemisphere. This type of heating for glasshouses was the first in Austria and has been copied — so the writer claims — in many foreign countries.

Last year I visited Vienna in search of traces of Hügel. In the Naturhistorische Museum I found 96 drawings and watercolour paintings he had made of Australian plants. Some were done in the field, others obviously finished later from herbarium specimens. In vain I searched for his house, gardens or greenhouses. Suburbia has almost obliterated his estate, and all that remains is a very small city square with European and American trees and shrubs and a Kindergarten. While I searched for Australian trees

An Austrian Gentleman Gardener (contd)

or shrubs I found his monument, erected in 1903 by the Austrian Garden Society to commemorate its founder and the promoter of plants for horticulture.

Plant collectors in early Australia came from very varied backgrounds; there were the well endowed gentlemen collectors like Sir Joseph Banks and Baron von Hügel, and the poor devils like the Germans Wilhelm Sieber and Ludwig Preiss, and the British Ronald Campbell Gunn and James Drummond, who laboured without much reward, almost always bankrupt but still intent on making beautiful collections. We owe them a great debt for their expertise and perseverance.

References;

Aiton, W.T. 1810-1813: *Hortus kewensis* (Longman et.al. London, 5 vols).

Blunt, W. 1978: *In for a Penny* (London, Hamish Hamilton).

Endlicher, S.L. 1837: *Enumeratis plantarum quas in Novas Hollandiae . . . de Huegel* (Wien, Fr. Beck).

Endlicher, S.L. 1838: *Stirpium herb. Hügel* (Wien, J.P. Sollinger).

Hügel, K.A. von 1837; *Botanisches Archiv* (Wien, 2 Hefte Febr. 1837, Oct. 1837).

Link, J.H. 1821-1822: *Enum. hort. berol. alt* (Berolini, G.Reimer, 2 parts).

Peintner, M. 1841: *Die Pflanzensammlung und der Garten . . . v. Hügel* (*Allgemeine Gartenzeitung*, 34, 265-270).

Seddon, G. 1972: *Sense of Place* (University of Western Australia Press, Nedlands).



A Dedicated Fancier of Old Roses

by Anne Latreille

Trevor Nottle is a mild-mannered Adelaide schoolteacher in his mid-30s, who grows old-fashioned roses as a hobby and writes a mailbag full of letters each week to garden-lovers in Australia and around the world. Forty or fifty letters a week, he estimates, and he gets the same number in return. That's enough to fill the stack of large diaries in which he meticulously records his doings each day — most entries are to do with gardening — and to generate plenty of information about the four hundred odd roses flourishing in his garden on Mount Lofty.

He grows other plants there, too, but roses are his special love. So immersed is he in the subject that he wrote his recent book, **Growing Old-Fashioned Roses in Australia and New Zealand**, in an uninterrupted six-week burst.

His taste for old roses developed through gardening jobs as a teenager. The call-up put an end to that, but being at an Army camp in a lush part of New South Wales allowed him to sniff out a few roses. He did the work for pocket-money, just as he now runs a spare-time cottage industry — in his time off from teaching handicapped children — supplying roses to private gardeners and small nurseries around Australia.

Last season he distributed a thousand roses. This year — well, he's not so sure. He had to put his "risk capital" into a new car, so is hoping response to his book, which is selling solidly, may see him through. A going car is important to the dedicated fancier of old roses. It gives access to the derelict gardens, old churchyards and country roads where such roses grow in profusion — and, suitably equipped with plastic bags, damp newspapers and a sharp pair of secateurs, it transports precious cuttings quickly home again.

This is how Mr Nottle found "Alister Stella Gray", dated 1894 and also known as the Golden Rambler. Travelling north of Clare, he noticed the only feature of the garden around a deserted mansion was a huge rose stretching for ten metres or more. "It looked interesting, so I took cuttings. Six months later it flowered and I was able to run round with Deane Ross and Walter Duncan and identify it. The way to find these old roses is to go on the scrounge".

Messrs Ross and Duncan are two of the specialist stockists listed in Mr Nottle's book. He covers Australia, New Zealand and South Africa; he classifies the different roses, describing three hundred and illustrating ninety-one of them; he explains how to grow and care for the roses, propagate and prune them; he suggests suitable roses for different types of gardens. He is convinced that old roses — some of them ancient with a history of centuries, others introduced comparatively recently by breeders like Alister Clark — are the gardening trend of the future. "They're tremendous shrubs", he says: "they flower their heads off, they don't mind crowding, once you get them going they don't need gallons of water. Their perfume is magical. They don't make a collection of sticks and twigs like you find in a modern rose garden. You can do anything with them — prune them, train them high, put them in tubs, use them to cover outbuildings or pergolas, turn them into hedges. The variety is enormous, and each one is an individual. Some people like them for their historical associations (the White Rose of York, Chateau de Napoleon and so on), others grow them for personal or sentimental reasons, having had them given by friends or remembering them in their mother's or grandmother's garden. Some people are fascinated by them — old roses are a state of mind."

Trevor Nottle talks of roses as he writes about them, with humour, sometimes irreverent enjoyment, and affectionate enthusiasm. He describes the Centifolia rose thus: "This has long been known as the Cabbage Rose, an unfair name if ever there was one, for this rose is full of grace and not at all dumpy and prosaic like its vegetable namesake. It bears all the marks of a favourite child, a look of contentment at being well-fed and treasured . . . the leaves are often reflexed so that, if a child were to upturn one, a useful fairy's drinking cup might be made".

His own children, aged eight and seven, are inclined to punctuate family outings with groans of "Oh no, not another nursery!", but he says they take some interest in gardening, both having plots of their own.

He hopes that in later years they will come to appreciate "what a fascinating world gardening really is."

(Growing Old-fashioned Roses in Australia and New Zealand, by Trevor Nottle: Kangaroo Press; \$14.95 hard cover, \$9.95 paperback).

(Mr Nottle's Heritage Roses Australia group, which puts out a newsletter and has branches in every State, is based at 5 Walker Street, Stirling, SA 5152.)

Scented Leaf Pelargoniums

by Diana O'Brien

Introduction to the Family

Geranium is a name familiar to almost everyone who has a garden — but what is commonly called a “geranium” really belongs to the genus *Pelargonium*, one of five main genera of the family *Geraniaceae*.

There are over 200 species of *Pelargonium* (from the Greek *Pelargos*, meaning a stork — hence “Storksbill”) which originate from South Africa — although there are small numbers indigenous to Australia, East Africa and islands in the Indian Ocean. It is these South African species of shrubby, sometimes woody herbs, some of which were introduced into Great Britain and Europe in the 17th century, that are the ancestors of our modern garden cultivars, now numbering many thousands.

Although *Pelargonium* has now been the recognized botanical classification for over 200 years, the common name “geranium” still persists. Oil of geranium will always be called such, for industry and commerce are little concerned with botanical nomenclature, and pot-pourris have called for scented leaf geraniums since recipes were compiled. Think of your scented leaf pelargoniums as “geraniums” if you wish — but let that be as a translation of the family name.

A Brief History.

Aromatic plants and herbs have been cultivated for many hundreds of years, but none amongst them has ever achieved the diverse range of individual scents as that of the genus *Pelargonium*.

The practice of obtaining plant extracts with pleasing odour in order to impart flavour to food, to preserve food and to adorn the body dates back to antiquity — essences have been known to the Chinese for 20,000 years or more.

Perfumed oils were used by the Pharaohs, and from the fall of Rome to the Renaissance the development of perfumery was carried out mainly by the Arabs and Persians, who were familiar with extraction by distillation. During the Middle Ages scented plants became highly prized symbols of wealth and prosperity — recipes for ointments were well kept secrets and many mediaeval homes were strewn with sweet smelling herbs to disguise unpalatable odours. Medicines were concocted from them and many proven remedies of yesteryear are just as useful to-day.

With the development of the Dutch East India Company in 1602, botanists and collectors had access to a whole new world of plants. Foreign flora was a novelty and was highly sought after. In 1631 John Tradescant the Elder was to receive from the Cape of Good Hope the first species *Pelargonium*.

Francis Masson, an assistant at Kew, was sent by Sir Joseph Banks on a journey to South Africa to collect specimens. One of the first fine plants to catch his eye on arrival at the Cape on 30 October 1772 was a mass of purple flowered *Pelargonium*. During a 10 year sojourn in South Africa he dispatched hundreds of new plants to Kew, including 50 species of *Pelargonium*, scented ones among them. Many of these were hybridized by collectors, so Masson's species pelargoniums founded many of the range of plants we know to-day.

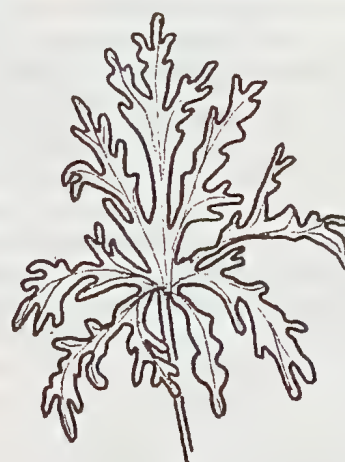
Because of the ease with which they were propagated they soon found their way to the cottage window sill or were used in dried arrangements. Sadly, by the 1890s they were seldom seen in pride of place, as other exotic plants had overtaken them, but they sur-

vived in country gardens and now once again are well to the fore amongst our scented foliage plants.

Once you start to collect and grow scented leaf pelargoniums it's hard to resist using them in other ways — pot-pourri, sachets, pomanders, natural cosmetics, or to enhance a special dish. In the garden the lacy pattern of some, and the cool greens, greys and greens and whites of the foliage are refreshing in the summer heat. They have become an invaluable addition to gardens for the blind.

Pelargoniums in Australia.

Around the shores of Botany Bay Banks and Solander collected, amongst other plants, two specimens of the family *Geraniaceae*, identifiable by their long-beaked seed pods. They were recorded as *Geranium pilosum*, later to be named *Geranium solanderii* and *Geranium australe*, later *Pelargonium australe*. Over the years other species of *Pelargonium* have been identified, some indigenous, some naturalized. For example, *P. capitatum* or the rose-scented “geranium” did in fact naturalize around Botany Bay and even to-day is found growing on the Kurnell Peninsula.



P. radens x



Variations of
P. graveolens

Scented Leaf Pelargoniums (contd)

In the 1880 catalogue of Payneham Nurseries in South Australia, *Pelargonium* species, their hybrids and varieties were advertised for sale and amounted to 425 types. Towards the end of the 1880s Australia began to experience a slump in the price of its agricultural products and a Royal Commission in Victoria recommended a judicious bounty for new vegetable products and the development of existing ones. As a result an experimental perfume farm was set up in 1889, near Donnolly; by 1893 35 acres of experimental perfume plants were under cultivation. Only three of these were to prove viable — Lavender, Roses, and the rose-scented "Geranium". Little more was done commercially until Mr G.Z. Stolarski hybridized a *Pelargonium* which gave not only an increased yield of oil but two crops of leaf growth each year; 200 ha were planted out by him near Wyong in New South Wales in 1963, and his proposal for an economically viable unit was presented to the XXth International Horticultural Congress in Sydney in 1978. There seems to be little reason why such a unit could not be established in Australia to-day.

Cultivation.

Scented leaf pelargoniums are quite undemanding and grow well in the garden in good friable, well drained soil. They are not, however, totally hardy and top growth will be cut down by frost in an open situation. A mulch of straw, dry leaves or pine needles will give added protection over winter. A warm, sunny and sheltered site is ideal, and partial shade is desirable where very hot dry conditions exist, for they will wilt in continuous searing heat.

In planting your scented leaf pelargoniums in garden beds always avoid an over-rich soil. It should be both friable and fertile but not overloaded with chemicals or animal manures. Autumn dressings with compost, leaf mould, blood and bone — any of the slow acting nutrients — will build a far stronger constitution than sudden applications of artificial fertilizers, which do little but promote soft growth with an accompanying weakened perfume.

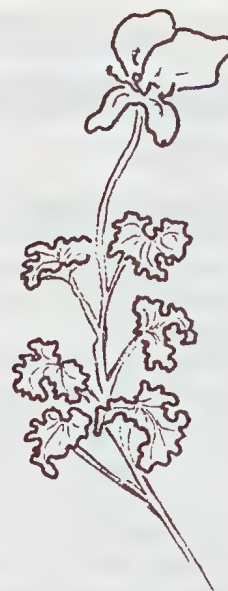
A good basic soil mix for plants grown in pots can be made from three parts sandy garden loam, one part washed river sand and one part peat moss. Add one dessertspoon of Dolomite and one tablespoon of blood and bone to every 2 gallon or 10 litre bucketful. An occasional feed of liquid seaweed manure such as "Maxicrop" will supplement the diet. Any necessary repotting of plants may be done in the spring or autumn, when you can use some of the cuttings. As scented leaf pelargoniums are mostly slender growing, they do not require much root space, and a 125-150 mm pot will be large enough in which to grow a good sized plant. Some of the sturdier growing kinds, however, make fine large specimens when grown in tubs or in the open garden.



P. capitatum



P. crispum
'Minor'



P. crispum
'Major'

Propagation.

Tip cuttings should be taken by March by the latest if you live in a frost prone area. Cuttings taken in March and moved on into 10 cm pots by the end of April will last well over winter in a frost free position, until ready for the garden bed in spring. Use sturdy, not sappy, side shoots 7 to 10 cm long and containing at least three nodes, and a simple propagating mix of 75% sand and 25% peat moss.

Scented leaf pelargoniums are easily raised from seed and most bear easily if allowed to do so. Seed should be collected just before the schizocarp (seed head) splits and put into an envelope to ripen. *Pelargonium* seeds have a germination inhibition factor which is a built-in guard against unfavourable or fluctuating climatic conditions. This inhibition factor is carried over into primary hybrids, which is the reason why you may often plant 10 seeds and have only 3 germinated after a month, 2 more in another month, and so on. To avoid this staggered germination the medium used for growing should be kept very moist (even wet) at all times until germination. All viable seeds should then appear within 4 to 10 days if a temperature of 20 to 21 degrees Celsius is maintained.

One third peat moss, one third perlite and one third washed river sand makes a good seed raising mix. To grow a plant in bloom from seed usually takes about 10 months, but one can achieve earlier results by taking a cutting as soon as the young plant is strong enough and growing on by the usual vegetative method of propagation.

Pruning.

The pruning of scented leaf pelargoniums may be done at any time during the growing season. The main aim of pruning is to rejuvenate the plant and achieve a shapely bush with numerous stems for a good leaf supply. On-going tip-pinchng of the leading shoots throughout the year will help to achieve this. Not all scented leaf pelargoniums have the same pattern of growth and this has to be taken into account — *P. tomentosum* (peppermint scented) for example is a lax rambling plant, while "Mabel Grey" with its delicious citron scent is very formal and upright.

Scented Leaf Pelargoniums (contd)

Older more woody shrubs can be pruned quite hard, eg *P. radens*, while others such as *P. fragrans* (nutmeg) and *P. odoratissimum* (apple) need only a light clipping.

Plants in the garden bed need to be trimmed a couple of times each year, in spring and again in mid to late summer, but any major pruning should be left until spring in frost prone areas. Plants will respond very quickly with new growth as warmer weather approaches. Potted plants in sheltered areas or glasshouses can be pruned in autumn if you wish. Remove any thin, unproductive stems as well as those which are dead or dying. Shorten the remaining branches by about two-thirds just above an outward growing leaf bud.

Leaf Shapes and Scents.

There is a great diversity of shape in the foliage of the scented leaf pelargoniums, and due to the ease with which these plants hybridize and form seed, either in the wild or in cultivation, the range of scents is now almost as diverse as that of shape and size. The various species have been extensively hybridized since the early 19th century until a very involved and complicated group has emerged. Exact parentage in many cases is a haphazard calculation.

The intensity of scent in all plants varies with the time of day. It is usually strongest in the morning after the dew has gone, but before the sun has dried the volatile oil. The perfume is what is known as "fast", that is to say the odour is not generally released until it has been bruised or knocked, though some will emit their perfume as the sun dries the foliage after a shower of rain or when brought into a warm room.

Among the more pronounced scents are those of rose, lemon, citron, nutmeg, apple, orange, lime, spice, peppermint, coconut, and the indefinable aromatics.

Some Species, Hybrids and Cultivars.

Rose scented.

- P. radens*; an erect branching shrub of about 1 m.
- P. graveolens*; slightly hairy grey-green leaves.
- P. capitatum*; the rose-scented "geranium" of old English gardens; a lax long-stemmed shrub.
- P. x asperum*; shrub up to 1 m.

Lemon scented.

- P. crispum* "Major"; slender woody stalks, to 1 m.
- P. crispum* "Minor"; fastigiate, to 60 cm.

Lime scented.

- P. x nervosum*; a compact bushy plant.
- Citron scented (cross between lemon and lime).**

"Mabel Grey"; slow growing, upright and somewhat woody, but with the strongest citron scent of all.

Apple scented.

- P. odoratissimum*; scent of Granny Smith apples.
- "Apple Cider"; a small fresh green leaved bush with an apple cider scent.

Spicy-apple scented.

"Old Spice"; (*P. odoratissimum* x *P. fragrans*).

Nutmeg scented.

P. fragrans; a small bushy dainty plant.

Orange scented.

"Prince of Orange"; a large erect plant.

Peppermint scented.

- P. tomentosum*; velvety grey-green leaves, a low spreading plant.
- "Joy Lucille"; an erect branching shrub.

Cococnut scented.

P. grossularoides; a low growing herbaceous, sometimes annual plant.

Nut scented.

"Concolour Lace"; a shrubby, spreading plant.

Cinnamon scented.

"Cinnamon"; oakleaf foliage on a well branched shrublet.

Ginger scented.

"Toronto"; similar to *P. x nervosum* in habit.

Aromatic.

- P. denticulatum*; finely divided leaves and pungent aroma.
- P. quercifolium*; handsome foliage plant with spicy scent.
- P. vitifolium*; strongly aromatic, grows to about 1 m.
- P. abrotanifolium*; the southernwood leaved pelargonium.



'Mabel Grey'



P. quercifolium 'Endsleigh'

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Keeping Cottage Crafts alive with Scented-leaved Pelargoniums

by Betty Hudson

Seeing the variety of herbs and kitchen plants (often in reconstructions of 18th century knot gardens and other layouts of historical design) on the tour of English gardens last year reminded me of the long history of the many and varied scented-leaved Pelargoniums.

Mrs Betty Paterson, a member of the Australian Geranium Society for many years, has made a study of this group of plants within the *Pelargonium* genus, and her demonstrations of their uses in cooking, wine-making, pot-pourri and pressed flower pictures at Society meetings are a continued source of inspiration and pleasure to other members.

The rose-scented leaves lining a cake tin to impart flavour to a sponge cake are well known, but Mrs Paterson adds a novelty touch by baking cakes in clay pots. She points out that there were no aluminium cake tins centuries ago, and therefore using clay is in keeping with baking methods of the time. Especially appealing (especially to children) are the tiny cakes which result from using 50 mm pots. A piece of foil is placed over the hole, and the entire inside surface is greased with butter or margarine, the leaves around the sides being held in place with a dab of the shortening. The cake, once baked, may be iced and decorated with crystallised flowers. Single flowers are best, and must be newly opened and picked early in the morning. Leaves dipped in chocolate provide another eye-catching decoration.

Ring cakes can be displayed to advantage with a small vase of flowers and scented-leaved foliage placed in the middle.

Suitable flavours for cakes include Pelargoniums with the following scents: rose, lime, coconut, nutmeg, lemon.

Custards can be made more interesting by placing scented leaves on top before baking. Crush the leaves with a rolling pin to release flavour.

Some of the sticky-leaved Pelargoniums (eg pine), which have a lacy appearance, may be used to imprint their shape on the bottom of a blanc-mange (top when turned out).

When making white sauce to serve with fish, try adding some chopped up *Pelargonium crispum* (lemon) leaves instead of parsley. For a stronger lemon flavour "Mabel Grey" leaves are indistinguishable from lemon verbena.

For tea with a difference, pour boiling water over any of the scented leaves that take your fancy. Jellies, jams, and ices may all be enhanced by using the appropriate scented Pelargonium leaves. Even wine can be made from these leaves — Mrs Paterson has tried nutmeg, peppermint, rose and lemon with great success and many exclamations of astonishment from people at Society flower shows where the bottles have been on display.

As you can see, there is much scope for variety and experiment in the cooking area, with the wide variety of scents from which to choose.

Mrs Paterson also grows English lavender, and combines the dried heads with rose scented Pelargonium to make pot-pourri. Decorative little muslin bags filled with the mixture make attractive and inexpensive gifts to place in the linen cupboard or hang in the wardrobe. The recipe is as follows:



MRS BETTY PATERSON

Pelargonium/Lavender Pot Pourri

2 cups rose Pelargonium, dried
2 cups English lavender heads, dried
1 level dessertspoon orris root powder
12 drops Pelargonium oil
Mix together

Freshen with a few drops of oil when necessary.

Many of the scented leaved Pelargoniums have small, variably lobed leaves of a very decorative nature, which lend themselves to pressing for dried flower pictures. The flowers of the scented leaved plants are mostly in the pink, mauve/purple or red tonings and these colours tend not to fade. Mrs Paterson's pressed flower pictures are much in demand, and I personally find the oval shapes with a brown mount and a bronze or gold frame particularly appealing.

Mrs Paterson has also studied art and is currently using pastels to create flower pictures of all descriptions. First of all she arranges the flowers in a vase or other container, and then turns a spotlight on the arrangement to create a shadow, which gives depth to the finished picture. The pictures are then framed in glass to protect them from smudging.

To conclude: all this adds up to one very absorbing hobby which has constantly changing interest and variety built into it. As new cultivars become available, there is always something different to look forward to, providing lots of materials with which to work. Even among existing Pelargonium species there is immense variation in colour and form, of the leaves particularly, giving lots of scope for the person with an artistic bent. Mrs Paterson reminds us that creative ideas from long ago still have a place in to-day's society.



LIME GERANIUM CAKE, BAKED IN CLAY GARDEN POTS, USING LIME GERANIUM 'NERVOSUM'

New Roses in the Old Tradition

The English rose breeder David Austin, of Wolverhampton, introduced a few years ago a group of what he describes as "new roses in the old tradition"; that is they are new varieties but with much of the charm and other characteristics of what we like to call "old-fashioned" roses; they are quite unlike modern hybrid teas and floribundas.

Mr Ron Boaden, of Mount Eliza in Victoria, has imported stocks of these David Austin roses, and now has a limited number for sale. Following the hot dry summer of 1982-83, during which the roses were in quarantine, Mr Boaden managed to get only about a hundred buds for propagation. However most of the resulting plants flowered, and he describes them as "small, but very beautiful". Since then, however, they have put on good growth.

I first saw these roses in England last year, when Graham Thomas pointed them out at Wisley — though "Wife of Bath" was the only one flowering at the time, a warm pink with a very strong fragrance and an unmistakably "old-fashioned" look. Later I saw "Chaucer" (most of the names come from "The Canterbury Tales") flowering in my sister's garden in the midlands — still quite a small plant after five years but with exquisite shell-pink, deeply cupped flowers and an equally strong fragrance.

Not surprisingly the demand for these roses at present far exceeds the supply. It will be interesting, however, to see how they perform under varying conditions in this country, and we hope to have more news about them at a later date — by when, hopefully, there will be more plants available. (Tim North)

The Miner's Cottage Garden, East Moonta, South Australia

In our August 1983 issue we published an article on this garden, written by Trevor Nottle. We are pleased to be able to announce that the garden's owner, Mrs Mary Ferguson, was awarded an Australia Day Citizen's Award in recognition of her work in restoring this garden.

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BOOK REVIEWS

Three Gardens,

by Graham Stuart Thomas; published by Collingridge
reviewed by Tim North

Mr Thomas is at pains to explain that this is not an autobiography. Had it been, and knowing his many and varied interests — music is one of them — there would have been a good deal more in it than talk of gardens and plants.

But it is as a plantsman that he is best known, and there are probably few people alive to-day who know more about garden plants than Graham Stuart Thomas. His knowledge is encyclopaedic, yet it is tempered by a sensitivity that tells him how to **use** plants effectively. It is the combination of these two assets that make, not just a great plantsman, but a great gardener.

The book is basically an account of the three gardens, all in the southern part of England, that he has created and owned. There is an interlude in which he describes his experiences while working in several nurseries, culminating in his highly successful partnership with James Russell at the Sunningdale Nurseries. The text is interspersed throughout with quotations from what must be one of Mr Thomas's favourite books — Parkinson's **Paradisi in Sole Paradisus Terrestris**.

In spite of his stature in the gardening world of to-day, he is a modest, unassuming man, and he writes easily and without a hint of affectation or patronage. He explains, in an almost conversational manner, why he chose a certain plant for a certain spot, why he made a clearing here, an enclosure there. "The smaller the garden is", he says, "and the bigger the collection the easier it is to achieve a muddled effect — this is the downfall of many modern gardens, where the temptations of the garden centre may have proved too strong. It is possible, just possible, I may be pleased with what I have put in, but more than likely I shall be thinning out and re-arranging in a few years. Gardening is opportunism!"

Though Mr Thomas is an artist with plants ("*Hebe pinguifolia* 'Pagei' is just right as a complement to pink heaths, with *H. albicans* a bit taller and less grey"), he is human enough to confess to some weaknesses ("I am sure it would be possible to do better with the borders, if only we were not so devoted to certain plants. It has been a case of fitting into the scheme as well as possible certain plants that I was determined to grow"). It is comforting to know that such a great plantsman and great gardener has the same problems that are familiar to many of us!

I have not counted how many plants he writes about — the "blurb" on the dustcover says "about 750", which is a lot of plants, especially in such a personal account as this one, and we have the feeling that he is on intimate terms with every one of them.

This is a delightful, very readable book, but it is also a book from which one can hardly fail to learn a great deal. It is very nearly as good as a personally conducted tour around the three gardens; in fact in a sense it is better, for not only do we see the gardens grow, often from unpromising beginnings, but we see them in every season, spring, summer, autumn and winter. This is a "must" for every genuine garden lover.

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Scented Leaf Pelargoniums

by Diana O'Brien; published by the author and
available from her, at 98 Anzac Park, Campbell, ACT
2601, for \$3.80 including postage.

reviewed by Tim North

The scented leaf Pelargoniums are not nearly as widely grown as they deserve to be, and inadequately dealt with in most gardening books. Hence this little book, of fifty-eight pages, fills a real need.

The Geraniaceae has been the author's hobby for a number of years. She starts her book with a general introduction to the family and its history in cultivation. She continues with chapters on cultivation, propagation, pruning, watering, pests and diseases; and there is a remarkably comprehensive list of species, hybrids, and cultivars — including three little-known Australian species. The making of pot-pourris, sachets, cushions, creams, jellies, cakes and desserts is covered, and there are several pages of recipes for preserves, jellies and drinks.

The book is illustrated with carefully executed line drawings by the author. This is an excellent little book which will appeal to a great many gardeners — and cooks!

Some Books on Australian Botany and Gardening

McCormicks Bookshop, 2 Regent Street, Paddington, NSW 2021, has, from time to time, an interesting selection of old botanical and gardening books. The following are some of the titles that were available at the time of going to press: (prices vary from \$50 to \$250).

Andersons Manual of the Vegetable Garden and Orchard; edited by Fred Turner (Sydney n.d. octavo; wrappers).

Boldrewood, Mrs Rolf. The Flower Garden in Australia (Melbourne, 1893; small octavo, cloth).

Chisholm, Nerine. Australian Gardens, their Planting and Making (Melbourne, 1949; octavo, cloth, dust wrapper).

Cole, T.C. Cole's Gardening in Victoria . . . together with a comprehensive calendar for the operations of each month of the year (Melbourne, 1860; green cloth, embossed, octavo).

Crichton, David A. The Australian Horticultural Magazine and Garden Guide (Melbourne 1878; 2 vols. octavo).

Hannaford, Samuel. Jottings in Australia; or Notes on the Flora and Fauna of Australia; with a catalogue of the more common plants, their habitats and dates of flowering (Melbourne, 1856; stiff blue wrappers, with title repeated on front, octavo).

Heyne, E.B. The Fruit, Flower and Vegetable Garden (Adelaide, 1871; first edition, duodecimo, wrappers).

James, H.A. Practical Horticulture for Australian Readers (Sydney, 1890; octavo, cloth, wrappers bound in).

McEwin, George. The South Australian Vigneron and Gardeners' Manual (Adelaide, 1871, second edition).

Mack, Amy E. A Bush Calendar (Sydney, 1909; octavo, illustrated cloth).

Meredith, Louisa Anne. Bush Friends in Tasmania (London, 1891; last series; folio, decorated green cloth; no.374 of a limited edition of 700, signed by the author).

Meredith, Louisa Anne. Some of my Bush Friends in Tasmania; native flowers, berries and insects (London, 1860; blue cloth, heavily gilt embossed, 11 full page col. lithographs and col. lithographic headings and colophon).

Moore, Charles. Handbook of the Flora of New South Wales (Sydney, 1893; octavo, cloth).

Pescott, E.E. Native Flowers of Victoria (Melbourne, n.d. (c.1940); small octavo, illustrated wrappers).

Rupp, Rev. H.M.R. The Orchids of New South Wales (Sydney, 1943; green cloth, illustrated dust wrappers, octavo; issued from the National Herbarium, Sydney, as part of the Flora of NSW).

Spicer, Rev. W.W. A Handbook of the Plants of Tasmania (Hobart Town, 1878; small octavo, decorated cloth).

Sulman, Florence. A Popular Guide to Wild Flowers of New South Wales (Sydney, 1913; octavo, decorated cloth, 2 vols).

Treseder Bros. The Garden (Sydney, 1880; duodecimo, cloth covered boards).

Wools, William. Contribution to the Flora of Australia (Sydney, 1867); bound with The Plants of New South Wales (Sydney, 1885; octavo, cloth; copy belonged to J.E. Tenison Woods, whose signature appears on inside front cover).

Wylde, R.T. On Annuals, Basket Plants and Climbers (Adelaide, 1876; duodecimo, decorated wrappers).

Young, Alfred (editor). The New South Wales Gardener; a Handbook to the Garden (Sydney; octavo, illustrated wrappers).

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The Anzac Story

by Dorothy Downes

Our sailing in the last European season took us to the eastern islands of Greece and the west coast of Turkey.

One area of particular personal interest to us as Australians was the island of Lemnos, where the main fleet for the Gallipoli campaign was assembled, the Dardanelles and the Gallipoli Peninsula. All five of us on board had grown up in the tradition of the Anzac landing, with father, grandfather or uncle involved, so it was an emotive visit for us all.

We reached Lemnos from the Sporades, tying up first at Mirini, the capital, a tiny village dominated by a 14th century fortress. While the boat sailed around the coast to the village of Mudros, two of us walked in the summer heat the twenty miles from Mirini to Mudros, wishing to gain at close hand a picture of the landscape.

The island surely is unchanged since long before the time of Gallipoli, with the local people scratching a bare living in the harsh volcanic soil. Across the shallow valleys we saw pocket-handkerchief sized fields of grain being harvested, small flocks of sheep — black and white mingled — and, in the generally dry landscape, the welcome green of tiny vineyards. There were almost no trees, though we did pass two mulberry trees on the roadside and stopped to sample the fruit.

The village of Mudros too must be almost unchanged since Gallipoli. It lies on the shore of the huge harbour in which the fleet of several hundred ships of all types and sizes assembled for embarkation to Gallipoli. There are still Australian place names for the small crumbling piers constructed in 1915. In 1983, by contrast however, except for a few small fishing boats ours was the only boat in the harbour. We were greeted warmly by many of the villagers, and one elderly man asked us to accompany him to his home, as he wished to give us some bottles of his home-made wine as a tribute, he said, to the bravery of Australian soldiers. And so we sampled a product of one of the vineyards we had passed on our walk — a rough but not unpalatable red.

The trip from Mudros to the Dardanelles was expected to take about fifteen hours. We set out in the evening, and experienced a night of rain and storm, with the lights of more and more ships appearing, coming from and going to the entry to the Dardanelles. In the early morning light we sighted Cape Helles, which is the tip of the peninsula, the cliffs and hills of Gallipoli Peninsula, and the British and Turkish war memorials, with Troy and the plains of Troy unseen but across on the Asiatic side. The never ending four knot current out of the entrance, combined with the wind against us, forced us to motor up the Dardanelles to the town of Canakkale, on the Asiatic side of Turkey. On a nearby hillside is written large, in white stones, the message in Turkish that we are no longer enemies. Everywhere we received the warmest of welcomes.

Gallipoli we reached by ferry from Canakkale — a half-hour trip, with excited Turks chatting to us as they discovered we were Australians. Then by taxi around the edge of the sea, with the first of the steep hills rising vertically up on our left. Next through the central broad portion of the peninsula — a poor, dry farming country, with Turkish women, in traditional wide-legged patterned cotton trousers caught in at the ankle, long-sleeved blouses and scarf head-dress, working in the fields — small patches of olives, vines or vegetables.

We next approached the deep ravines and scrub-covered ridges of the battle area, with no houses, no cultivation, unchanged over the years. Except for the war cemeteries. We visited those most closely identified with the Australian part of the campaign —

Plugges' Plateau, Shrapnel Valley, Shell Green and, above all, Lone Pine, in what has been described as still the most savage part of the whole isolated peninsula. Each cemetery is surrounded by pines, while the graves are marked with simple plaques set in rows in the ground, with small shrubs native to the area, such as rosemary, planted among the short tough grass, and the scent of thyme wafted in the air. As one walks among the rows, reading the inscriptions to Australia's sons aged 20, 21, 22, many dated April 25th 1915 and on to the end of that year, the tragedy of that futile carnage really strikes home. The names of the "missing" are inscribed on the walls. There are no Turkish cemeteries on the peninsula, the Turkish soldiers being buried in anonymous communal graves.

Cape Helles, which was a largely British area of operation, though Australians took part in at least one attack there, is the more open part of the peninsula. It is said to be ablaze with wildflowers in the spring, but these were over when we were there in June. The central area of Anzac operation is one of steep ravines and sharp-edged hillsides covered with tangled scrub — a tightly knit combination of furze, prickly oak, arbutus, Spanish broom, myrtle and cistus — which further added to the difficulties of the soldiers trying to scale the heights.

Although the scrub has grown over most of the trenches, their lines can still be traced. There are few tall pine trees now, probably because the well-prepared Turkish trenches on the heights were firmly roofed with heavy pine logs. Open space in this area is rare and small, but here too there are wildflowers in spring, including iris on long stems. Yellow everlastings and pale mauve scabious were still blooming.

Our final view of the area was Anzac Cove itself. We all exclaimed at the size of the tiny beach where the thousands of troops, horses, ammunition and supplies were landed, and at the narrowness of the flat strip of beach before the land rose into the steep hills above, where the Turks were entrenched. We returned to Canakkale with thoughts of the courage of those young men, and of regret that it ever happened.



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Some Gladiolus Species

by Barney Hutton

It is strange that there is so much emphasis on the large flowered varieties of Gladiolus and so little attention is paid to either the species or the early-flowering Nanus group. Both of these have a delicacy and elegance completely lacking in the large flowered varieties, which in my view are best confined to the "picking garden".

The small flowered Nanus group were originally raised from a cross between *G. tristis*, a pale yellow, and *G. cardinalis* and are often called *G. colvillii* after the Chelsea nurseryman who first introduced them, about 1823. I first met with them when I acquired my present house about twenty years ago. The names of the two which came up in my garden I have been unable to trace. One is a rosy red with a dark flaking, growing about 18 inches high, and the other is scarlet and grows about 30 inches high. I have since acquired several other varieties, namely "The Bride", a pure white, "Amanda Mahy", deep salmon pink with small violet flaking, and two others, *G. carneus*, a species, and *G. rubra*, whose origin I don't know.

Anyone not familiar with the Nanus group can get a good idea of their charm from those illustrated in the bulb section of "The Dictionary of Garden Plants" by Roy Hay and Patrick M. Syngé. I have found these gladioli perfectly hardy in my garden on Mount Macedon, and they can be left in the ground all the year round. They flower from late November to early January. *G. purpureo-auratus*, one of the parents of the large flowered garden hybrids, flowers for me towards the end of January.

The branch of the Adelaide Botanic Gardens at Wattunga is specialising in South African and native plants. A number of species gladioli are being grown but most of the seedlings have not yet reached flowering size. Early last century South African species gladioli were being grown in this country along with other "Cape bulbs". An early Tasmanian catalogue lists a dozen or so, but the names are mostly at variance with those given in the RHS Dictionary.

It may well be that species gladioli are around in areas of early settlement, old and perhaps abandoned gardens, churchyards and cemeteries. *G. tristis* has been reported from such areas in Victoria, South Australia and Tasmania. Only recently a friend reported finding *G. cuspidatus* in a garden burnt in the Ash Wednesday fire. The owners had never seen it before and it must have been hidden by the small shrubs around it. The garden had only been established about forty years ago. One can only wonder where they came from originally.

It would be of particular interest to know of anyone growing gladioli of the Nanus group or any species. The only available source that I know of is Karandra Gardens, Mirboo North, Vic. 3871.

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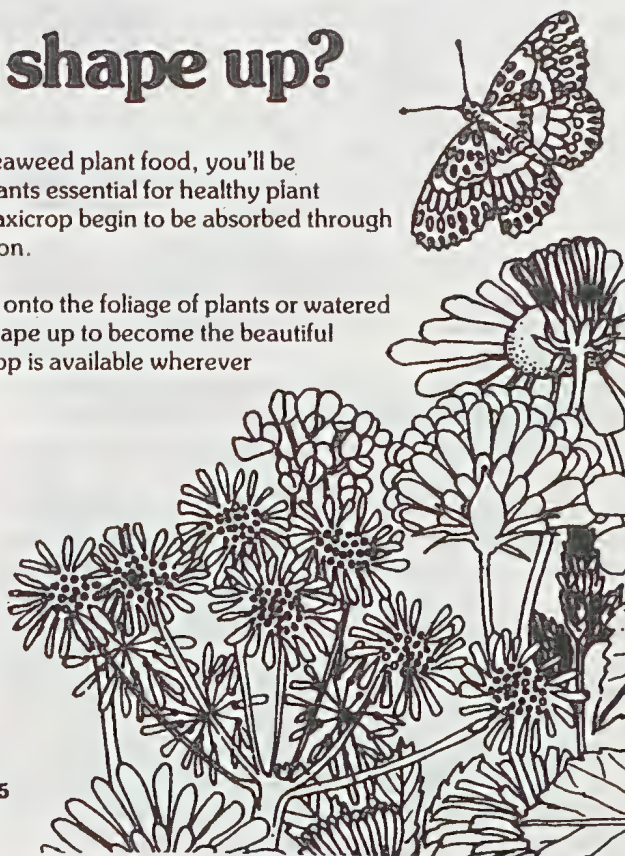
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Liliums do grow from seed — but!

by Basil G. Hayler

I hear so often of liliun seed trays being thrown out simply because "nothing came up". The chances are that these were perfectly good seeds, but that the aspiring grower did not have a full knowledge of the behaviour of liliun seeds during germination.

With a little study of the subject of liliun seed propagation, time and effort will be saved, and disappointment will be avoided.

The first thing to understand is that some liliun seeds, depending upon variety, take a long time to germinate, and that all liliums take three years or more to reach flowering size from seed, so patience is essential. But the time factor is insignificant when the end results can be so rewarding.

The second and most important point is that, though seeds from different varieties look alike, their behaviour during germination may be quite different. This is because of the variable climatic conditions of their natural habitat, where the winters may be long and cold, with the seeds being covered with snow for some months; or the summers may be insufficiently long to allow the seeds to germinate and make a small bulb before winter.

A liliun seed, when planted, will do one of four things. (1) It will germinate quickly and send up a seed leaf (cotyledon) in three to six weeks, possibly carrying the seed sheath up with it. A small bulb will form at the base of the seed leaf, and true leaves will quickly follow. (2) It will lay ungerminated for three to six months, then germinate suddenly and behave as in (1). (3) It will germinate fairly quickly, in two to three months, but will not send up a seed leaf at all. Instead it will push out a little bulb similar in appearance to a grain of white rice, which will send up a true leaf fairly quickly. This will be the only leaf for the season. (4) The one which causes the most problems. It will germinate either fairly quickly, or very slowly, in the same manner as (3) over a period of twelve or more months, but it will not send up a leaf of any type for twelve or eighteen months, or even more. This will also be a true leaf, and the only one produced that season. Seeds of this type of germination are very erratic, and for each leaf showing above the soil there may be a dozen or more germinated seeds laying below the surface.

Numbers (1) and (2) are called **epigeal** germination, immediate and delayed; or quick germinating varieties. Numbers (3) and (4) are called **hypogeal** germination, immediate and delayed; or slow germinating varieties.

Liliums which belong to the quick germinating group include all Trumpets and most Asiatics, whilst the Orientals, including Auratums, Speciosums and their hybrids, belong to the slow germinating group.

It is not necessary to know which type of germination will apply to seeds being planted provided that one is aware of the time factors involved — but it is nice to know what should be going on down there.

A good method of seed raising which I use for all types of seed is as follows: take a seed box or ice-cream type of container with small drain holes in the bottom; partly fill it with a good seed box mixture, consisting of two parts of crumbly soil or compost, one part of coarse river sand, and one part of peat moss; then saturate it with clean water. Sprinkle the seeds on the surface, leaving them uncovered. Slip the container into a plastic bag, or seal it in clear plastic sheet, then place it in a well lit warm position, such as a window sill. Check occasionally to see that it does not become too

dry, although it should stay fairly wet in the plastic bag.

It is most interesting, as the seeds can be watched as they germinate, producing their little bulbs, their leaves, and their roots which eventually pull the tiny bulbs down into the soil. All types of germination can be observed in this way, and easily recognized.

Damping off sometimes occurs, so a fungicidal spray may be necessary occasionally.



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An International Garden Festival

An International Garden Festival opens in May this year on the outskirts of Liverpool, a dockland city in the north of England, and it has been suggested that the idea could be adopted as part of our Bicentennial celebrations in 1988.

The Festival will include an Australian National Garden, which, at a cost of \$40,000 to the Australian taxpayer, will recreate an outback garden, complete with tape recorded bull-frog noises, the live creature apparently being too tender for the English summer.

However, the Festival, which will cost an estimated \$25 million or more, has become a subject of local controversy. Tory politicians see it as a major economic boost for Liverpool, which, with one adult in every five out of work, is one of Europe's most destitute cities — one writer has described it as a "hand-me-down Dublin"; but Liverpool City Council, controlled by the far left of the British Labour Party, claims that it is a sham, that it will not create jobs, and does not meet the urgent priorities of housing and social welfare; the Council has now withdrawn all support for the Festival.

The Government evidently relies on flower power to lift the gloom. More than thirty countries are taking part. The USA are spending about one million dollars on their garden, the Japanese more than half a million, and the Chinese are sending a ten-man team to build a walled garden with a pergola.

Queensland is once again "doing its own thing" with a display of tropical Australian plants, and the Bicentennial Authority are having a bedding plant logo advertising our 1988 celebrations.



Simplicity - the Pick of the Bunch

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A frost-hardy annual with long lasting and fragrant, attractive lavender-blue flower heads with scores of "whiskered" blooms and delicate fernlike foliage. Ideal for cutting.

3. NEW! Cornflower 'Frosty'

A delightful new colour break in this frost-hardy annual, with powder-puff blooms in blue, purple, pink and crimson shades, all tipped with silvery white.

4. NEW! Dwarf Hollyhock 'Pinafore'

A vastly improved and much dwarfier variety with up to FIVE FLOWER SPIKES PER PLANT. The semi-double or single 10cm. ruffled blooms cover the full colour range.

5. NEW! Lobelia 'Snowball'

Glistening, contrasting and very effective snow-white flowers ideal for edging or for contrasting with other annuals, such as blue lobelia, dark coloured violas, and dwarf marigolds.

6. NEW! Mountain Phlox

A native of California, this hardy annual produces lovely lavender-pink flowers which gradually turn white as they age. Plants are very free flowering, blooming from Spring through to Autumn. The attractive foliage is fine and fernlike.

7. NEW! Wind Poppy

Frost resistant with a profusion of big, glowing orange blooms. Ideal for semi-shade or full shade. It will flower for at least 2-3 months throughout late Spring and Summer.

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EV 2701

Potting Mix Quality

Kevin Handreck, Scientific Liaison Officer of the CSIRO Division of Soils, recently carried out tests on 73 different potting mixes, bought in bags from retail stores around Australia. Only one bag of each was tested, so the results do not reflect possible batch-to-batch variability; nevertheless they do raise some doubts about the suitability of many proprietary potting mixes.

Full details of these tests were published in **Australian Horticulture**, February 1984; the following is only a brief summary.

Tests were made for moisture content and bulk density, air-filled porosity, readily available water content in pots, pH, salinity, levels of available nutrients, toxicity to germinating seeds, and ability to be re-wet after becoming dry.

Some of the mixes were too dry and proved difficult to re-wet. Quite a few had a pH value well outside the optimum range — one had a pH of 2.5 and some were over pH7. Seven had salinities in the too-high range, and of these only one carried a warning that leaching of the pots after filling was necessary.

Of the 73 mixes tested, 45 contained essentially no water-soluble nitrogen, and a further 6 had low levels that gave only minimal plant growth; 12 of these were described as “containing nutrients”. A further 8, on the other hand, had excessively high levels of water-soluble nitrogen. 23 mixes had phosphorus levels that were too low for all but those plants most prone to phosphorus toxicity, and 10 contained levels of water-soluble phosphorus that would have been excessive to most plants, and toxic to some. One third of the mixes had an inadequate level of water-soluble potassium, and another third had levels above the optimum. Some trace element deficiencies would most likely have been induced in plants in at least some of the mixes.

Ten mixes had an air-filled porosity that was far too low for general use except in very deep pots, while a few were too open and held too little water. One African Violet mix had an air-filled porosity that was far too low for its stated purpose.

Only 27% of the mixes tested were suitable for use without any added fertilizer or other modifications; 15% needed major modification.

Following these tests Mr Handreck made a number of recommendations. The main recommendations were:

(a) more information needs to be given on the bags, and the information should be both truthful and specific to the mix in the bag;

(b) manufacturers need to be more familiar with the needs of plants, or they need to improve quality control;

(c) an Australian Standard should be developed for potting mixes sold in retail packs;

(d) the ideal situation would be for all mixes sold in retail packs to contain a full range of trace elements and a balanced supply of calcium and magnesium at bagging. Premium mixes should contain a supply of all other nutrient elements adequate for several months of plant growth.

(Note: **Australian Horticulture** is available on subscription, \$20 per annum for twelve issues, from PO Box 82, North Melbourne, Vic. 3051).

Why should we test our soil?

The object of soil testing is to discover the proportions of each major nutrient already available in the soil, before any fertilizer is added. A soil test determines just what is required to establish a well-balanced food bank for the plants growing — or to be grown — in that soil. Testing also determines whether or not there is a need to add lime.

Incorrect applications of fertilizer may do more harm than good. Too much is as bad as too little, and applying the wrong kind, or the wrong combination, may be almost fatal to the plants.

Regular soil tests are necessary because soil changes. It is affected by weather, by cultivation, and by other factors. It may vary from one part of the garden to another.

Each major plant nutrient helps in different ways. Nitrogen is essential for healthy growth of leaves and stems; a deficiency shows in stunted growth and small, pale green leaves; an excess will result in “bolting”, soft weak tissue and poor flowers or fruit. Phosphorus encourages root formation, and this assists the plant in extracting all necessary food from the soil. It gives young plants an early start, hastens maturity and assists in the ripening of seeds and fruit. Signs of deficiency include poor roots, small bluish or purple leaves, few flowers, fruit and seeds. Potassium is necessary for the development of flowers and fruit, helping the conversion of sugars and starches. It contributes to disease resistance; a deficiency shows up in poor leaves — yellow, spotted or scorched, which often fall prematurely. Too much can make plants prone to frost damage.

Any application of fertilizer, however, may be wasted if the pH, the degree of acidity or alkalinity of the soil, is wrong for the types of plant being grown. This is because certain plant foods are “locked in” and therefore cannot be absorbed by the plants under conditions of high acidity or high alkalinity.

The term pH may need some explanation. The small p is derived from the Latin “potens”, meaning power or exponent (in the mathematical sense). The capital H is the symbol for hydrogen. pH represents the concentration of positively charged hydrogen ions against the negatively charged hydroxyl ions, and in pure water this is about one ten millionth part of a gramme equivalent per litre. This can be expressed mathematically as 10 to the power of minus 7, and on the logarithmic scale, with the sign reversed, this becomes pH7. A pH below 7 means that the hydrogen ion concentration is greater, which makes the water increasingly acid; a dilute mineral acid has a pH of about 2. Conversely a pH above 7 means that the hydrogen ion concentration is less, so the water becomes increasingly alkaline. As the pH scale is logarithmic it follows that a pH of 5, for example, is ten times more acid than pH6, while pH4 is a hundred times more acid than pH6.

The pH value of a soil is a crucial factor in deciding upon soil management and the choice of plants, so it is a great help to know, with a reasonable degree of accuracy, what the pH value of one's soil is.



Rapitest Soil Test Kits and Meters

The present range consists of two test kits — a soil test kit and a soil pH test kit, and four meters — a fertility meter, light and moisture meter, moisture meter, and soil pH meter. In addition, a Houseplant Care kit will be available shortly.

The test kits have been developed in UK in conjunction with the UK Department of Agriculture and the National Vegetable Research Station. They are basically simplified versions of the latest laboratory tests.

The Rapitest Soil Test Kit brings a new accuracy to soil testing, with instant filtering and new methods. The kit contains sufficient material for more than 50 tests, a 6-page colour instruction leaflet and comparison chart. The instant filtering cuts out the need to wait lengthy periods for the soil to settle out of the solution.

The Rapitest pH tester contains sufficient material for more than 20 tests, and an 8-page colour leaflet, which not only indicates how acid or alkaline the soil is, but also gives instructions on taking the soil sample and how to alter the pH when the result is known. A pH preference list for over 400 plants is also included.

The Rapitest Houseplant Care Kit will include:

- (a) a test solution with simple instructions on how to use it to check the pH of pot plant composts;
- (b) a list of plant pH preferences;
- (c) a gentle acidifier to lower the pH of the compost if it is too alkaline;
- (d) a liming agent to use if the compost is too acid;
- (e) a bottle of Maxicrop Indoor Plant Food; and
- (f) advice on light, watering, warmth, humidity, pest control, disease prevention, cleaning and positioning of pot plants.

The range of four meters is made in UK, all are individually tested and calibrated and are guaranteed for twelve months. Each meter contains an extremely comprehensive booklet outlining its use and how to interpret and act on the results shown. All work equally well in soil or soil-less potting mixes — in fact the fertility meter has specific settings for outdoor soils and for indoor potting mixes.

Rapitest Soil Test Kits and Meters are available from most leading retail nurseries and garden centres. Suggested retail prices are:

Rapitest soil test kit	\$19.25
Rapitest pH soil test kit	\$5.95
Rapitest Fertility Meter	\$39.50
Rapitest Plant Light and Moisture Meter.....	\$34.00
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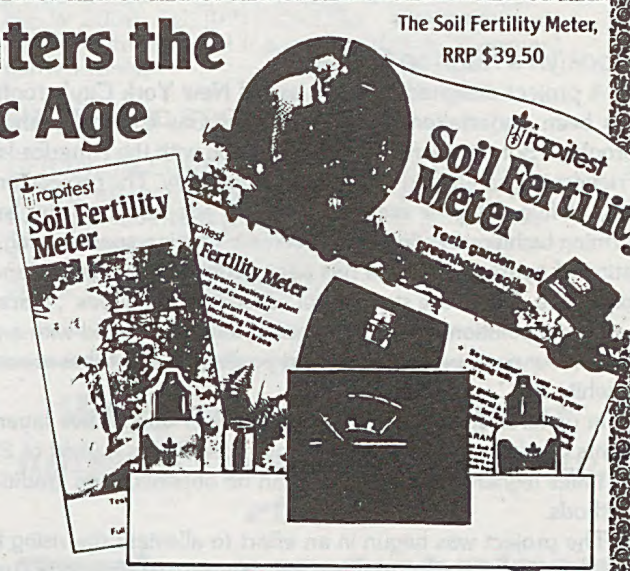


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All meters include a comprehensive booklet with detailed information relevant to the meter's usage, and are available from Garden Centres and Nurseries throughout Australia or direct from Erica Vale Australia Pty. Ltd.

The Plant Light and Water Tester (a light and moisture meter)
RRP \$34.00

Plant Water Tester (Moisture Meter)
RRP \$27.00.

garden cuttings

Conference on Old Roses

The first International Old Rose Conference will be held in Hawera, New Zealand, from 30th November to 3rd December 1984. Further details are available from Mrs T. Sylvester, Churchouse Road, RD1 Greenhithe, Auckland, NZ, or from Mr Trevor Nottle, 5 Walker Street, Stirling, SA 5152.

Glueing grafts

The Department of Ornamental Horticulture at the Hebrew University in Jerusalem has found an adhesive which has proved excellent for glueing grafts. Based on cyanoacrylate it makes successful grafting possible with a great many species and sizes of graft, without the necessity of tying, banding, or other methods of fastening the scion to the stock. The technique works well with very small seedlings, and numerous species not previously used as rootstocks were found to be suitable. Glue grafting was successful even in winter.

The Israeli researchers are now experimenting with the addition of growth stimulators to the adhesive, and are also testing the technique on other plants, including woody species. (From "The Avant Gardener", a horticultural news service published by Horticultural Data Processors, New York).

Brooklyn's Rooftop Garden.

A project designed to make use of New York City's rooftops has been undertaken by the Brooklyn Gas Company and the Brooklyn Botanic Gardens, in conjunction with the America-Israel Friendship League and Consumer Action Now. The project, under way at five different sites, is testing an adaptation of the Israeli farming technique called "tubeponics". This is a space-saving variation of hydroponics, and has been proved both efficient and inexpensive. Plants are started from seed in "horticubes", placed in a nutrient solution, then transplanted into tubes filled with a mixture of four parts perlite to one part peat moss. The tubes are made of white PVC.

In general, for each square foot of floor space, five layers of plants can be grown. Under optimum conditions a yield of 25 to 30 times higher per square foot can be obtained over traditional methods.

The project was begun in an effort to alleviate the rising food and associated transportation and energy costs faced by urban dwellers with no access to conventional garden plots. According to the USDA tubeponics had a growth rate in the USA in 1982 of 259%.

Australian Orchid Conference

The Ninth Australian Orchid Conference will be held in Melbourne from 12th to 16th September 1984. Full details and registration forms are available from the Conference Secretary, 37 Elliott Street, Mordialloc, Vic. 3195.

An International Garden Festival.

Gardeners planning to visit England this summer will not wish to miss the International Garden Festival, which will take place in Liverpool from May 2nd to October 14th.

The Festival, to be held on a 124 acre landscaped site, will feature a wide range of theme gardens from participating countries, displays by botanical gardens and arboreta, exhibits by scientific and research institutions, as well as commercial exhibits from all over the world. Included will be a Victorian garden, a butterfly garden, gardens for the disabled, and plantings of heathers and conifers. Further information is available from the International Garden Festival, Merseyside Development Corporation, Royal Liver Buildings, Pier Head, Liverpool L3 1JH, England.

Rain making.

Rain fell for the first time on the desert in Kuwait during 1983, created by rainmaker Graham Stevens, a London architect who uses self-inflating black plastic "clouds" to attract moisture, which then condenses on their cool undersides in surprising quantities, to form a steady supply of droplets.

Search for new indoor plants

Interior plantscaping has become big business in the U.S. and two major organizations, the Interior Plantscape Association and the Interior Landscape Division of the Associated Landscape Contractors of America have now been formed for professionals in this new field. These professional interior plantscapers are searching for new and uncommon plants to add interest and a "different" look to their installations. Among the newer plants is *Euphorbia trigona*, from Abyssinia, a succulent shrub with numerous three-angled erect branches, dark green with wavy white bands. The Black Olive, *Bucida buceras*, has leathery notched leaves clustered at the ends of twigs, while *Clusea rosea*, known as the Autograph Plant because it is possible to write one's name on the fleshy leaves, is being grown in several handsome clones. *Podocarpus gracilior*, the African Fern Pine, is also in demand in both tree and shrub forms.

(From "The Avant Gardener", a horticultural news service published by Horticultural Data Processors, New York).

A New University Landscape Course

The School of Architecture at the University of Sydney now offers a two-year full time Bachelor of Landscape Studies course. This post-graduate course aims to combine the theory and practice of landscape architecture with the disciplines of applied ecology and environmental management.



garden market place

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INVERGOWRIE FARM NURSERY, Wilson's Lane, Exeter, N.S.W. 2580. Tel: (048) 83-4277 — Extensive range of exotic and ornamental trees and shrubs, including conifers, maples, rhododendrons and azaleas. Many grafted lines. Tube to advanced sizes. Wholesale only.

SWANE'S NURSERY, 490 Galston Road, Dural, N.S.W. 2158. Tel: (02) 651-1322 — Where nature tends to grow on you! - Suppliers of quality trees, shrubs, roses, fruit trees, seedlings, indoor plants and a comprehensive range of chemicals and fertilizers to home gardeners. Qualified advisory staff on duty 7 days a week from 9 am to 5 pm. - Ample parking, light refreshments and beautiful gardens to make this a delightful nursery to visit.

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RAINBOW RIDGE NURSERY, 8 Taylor's Road, Dural, N.S.W. 2158. Tel: (02) 651-2857 — Iris and Daylilies. Bearded, Louisiana, Japanese Iris, species and water Iris. Tetraploid Day-lilies. Open weekends and by appointment. Visit us at bloom time Oct, Nov and Dec. Turn off Galston Road at Carter's Road, just past Swane's Nursery. Thousands of different Iris and a large rose garden.

ERDMAN'S COTTAGE HERBS, Lot 3 Church St, Bundanoon, N.S.W. 2578. Tel: (048) 83-6465 — Geraniums all varieties, herbs, spices, dried teas, seeds, succulents, old-fashioned perennials. Mail Order list 2 x 27c. Closed Thursdays. Lectures by appointment.

BUNDANOON HERB FARM NURSERY, 71 Penrose Road, Bundanoon, N.S.W. 2578 - Wide range of scented plants, herbs and cottage garden plants. Also ground covers and plants for shade. Gardens to explore. Open weekends and public holidays. Please phone (048) 836303 to arrange other times. No mail orders or catalogue.

THARWA PROPAGATION NURSERY, 21 Myoora Road, Terrey Hills, N.S.W. 2084. Tel: (02)450-1967 - Tubestock for home gardens and landscaping makes good cents. Native and exotic trees, shrubs, climbers, and groundcovers in deep 'super-tubes' ready to plant in your garden. Most varieties \$1.20 each, every tenth plant free. Open 7 days, 9 a.m. to 5 p.m.

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SHOWS AND SOCIETIES

GERANIUM LOVERS, The Australian Geranium Society meets monthly (alternating afternoon and evening). Quarterly journal, specialist library. Sub. \$6 per annum. Further information Membership Secretary, 27 Chichester St, Maroubra, N.S.W. 2035. Telephone (02) 349-2023.

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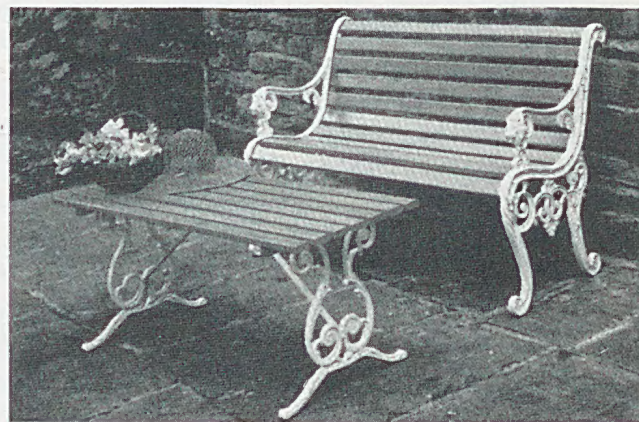
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The Nylex Multiflow Adaptor

Last year's drought has convinced most Australians of at least one fact — where water is concerned every precious drop counts. Many garden lovers have already installed more efficient watering systems such as drip or trickle irrigation and fixed sprinklers in an effort to minimise water use. A problem of these more sophisticated watering systems has been the need for multiple hoses or lines when the average garden has only a single tap outlet.

A new product from the Nylex Gardena range, the Nylex Multiflow Adaptor, solves this supply problem in one simple, economic step.

The Nylex Multiflow Adaptor consists of a panel of four separate controllable hose outlets from a single tap fixture. All four outlets can be used either individually or at the same time, providing that there is sufficient water pressure through the tap outlet.

The Adaptor can also in turn be adapted for use along the hose, by connecting a simple fitting to the outlet connection. This gives double the flexibility in running branch lines simultaneously, or in succession.

Soaker hoses, overhead sprinklers for pot plants and fixed sprinklers for lawns can now be operated at the same time, without the need to keep changing the hose connections frequently. Choosing which area to water is as simple as turning the tap on or off.

The Nylex Multiflow Adaptor is designed for use with standard 12 mm garden hoses, but adaptors are also available for use with larger 18 mm hose or polytubing systems. It is available at around \$27 from leading garden, hardware and department stores.